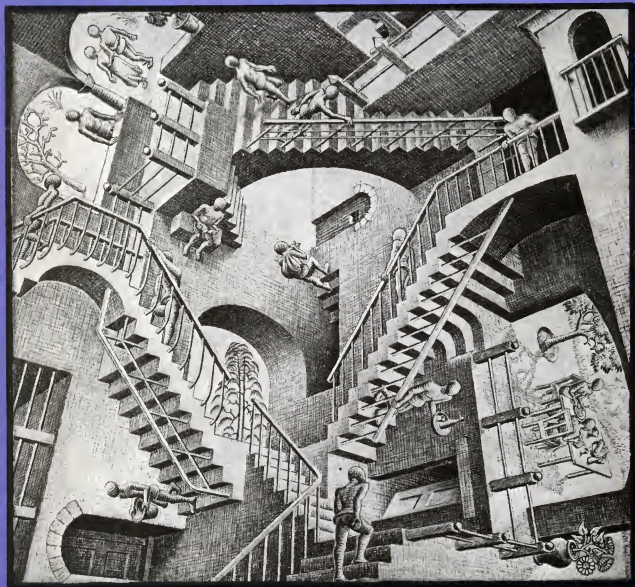


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Volume 51 Number 173

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Editor: MICHAEL MOORCOCK. Associate Editor: LANGDON JONES
Design: CHARLES PLATT. Advertising: CLAIRE WALSH
Editorial contributions and assistance, Thomas M. Disch, Hilary Bailey.
NEW WORLDS is © 1967, published monthly at 87 Ladbroke Grove, London,
W.11, with the assistance of the Arts Council of Great Britain. Manuscripts
should be typewritten, double-spaced with wide margins on white, quarto
paper and accompanied by a stamped, self-addressed envelope. No
responsibility is taken for loss or damage to manuscripts or artwork.

Subscriptions: 48/- (\$ 7.00) per year

The Lessons of the Future

I

ALL FICTIONS TEND toward either a retrospective or a prospective mode, towards understanding the present either in terms of the past or of the future. The novel in its classic Victorian form is retrospective; the fiction that has appeared in NEW WORLDS since its inception has been almost invariably prospective. The purpose of this essay is to examine some of the consequences of these opposing (and often unconscious) points of view.

The constant theme of Victorian fiction is the interplay of generations, the contest between the young and the old and its final resolution in an identity. It is not entirely accidental, therefore, that the Victorian novel burdened itself with the luggage of melodrama—wills and codicils, creaky old houses and their various ghosts and a neat denouement that reveals unexpected antecedents ("Father!"). These elements are a naïve expression of the same faith in the illuminating value of the past that prompted 19th Century painters and architects to dress themselves up in a jumble of historical "Styles"—Neo-Classic, Gothic and What-Have-You. This faith led a realistic novelist like Thackeray, writing *Vanity Fair* in 1847, to begin his tale in 1812. Thackeray believed in the essential immutability of the human condition; repeatedly he points out that, however odd the fashions of that past day may strike us, in all important respects Society is the same now as then. Therefore our own condition may be best understood by examining the condition of our ancestors.

THIS POSITION was given new

authority by Freudian psychology, which also looks to the past—of the individual or the culture—for an understanding of the present.

The past undoubtedly has its lessons still, but now there are many aspects of everyday life that are rooted in the future. Our technological world is not to be explained by history, not even by a history of technology, if only because we do not know how all the pieces fit together. Social institutions of immemorial age—church, school, the family, the body politic, even the structure and capabilities of the human body—are being altered out of recognition by forces imperfectly understood. An organic view of the modern age, a view as inclusive of present facts as *Anna Karenina* was inclusive of the essential facts of its age and society—such a view is no longer among our possibilities. There will be no more Tolstoists again until the pace of history decelerates, until we can point to a single figure and say: "Ah, the human condition!" Presently the human condition is changing; it exists as a spectrum.

II

MAN HAS CHANGED, and is changing. The process, begun a century ago or more, is still accelerating. He has become, characteristically, an urban dweller who lives out his life in an environment of artifacts and artifices where he cannot avoid a consciousness of his own essential mutability (a theme of much of the best speculative fiction). The social sciences, imperfect as they still are, indicate this much at least: that a man's character (and soon, perhaps, his physical person) is as artificial and arbitrary a construct as any accessory of his cul-

ture. As man's control over a once omnipotent nature is extended the notion of "Nature and Nature's God" becomes more and more problematical, not to say meaningless.

To note but a single aspect of this vast (and generally unconscious) process: the urban dweller is becoming more and more independent of the basic rhythms of night and day and of the seasons. It is possible—and often necessary—to live out a year in a metropolis like London without significantly adjusting the pattern of ones' life to the great, mythic dichotomy of winter and summer, of death, re-birth and harvest. Work and play are carried on throughout the year in a temperature-controlled environment. Thanks to rapid transport and economic internationalism, food is available on a largely non-seasonal basis. Christmas can be celebrated on a tropic beach. The countryside is no longer an inevitable background of our awareness but a stage-set for occasional "outings". And London is not characteristic of the new cities of our age. Great, and irreversible, migrations of the new breed of urban man are moving toward the city-complexes of the subtropical regions (e.g. California and Australia) where the articulated cycle of death and re-birth is altogether negligible.

With the general availability of electric power, as necessary to urban man as a water-supply, the even profounder dichotomy of night and day has lost much of its force, though it may be many years before it too is utterly abrogated. SUCH CHANGES must produce proportional changes in human consciousness, in the sense of what it means to be human. Christianity

and Judaism are both rooted in the notion of the cyclical nature of life, in its essential predictability. The greatest of our sceptics have scarcely dared to controvert the verities of *Ecclesiastes* :

To every thing there is a season, and time to every purpose under the heaven :

A time to be born, and a time to die ; a time to plant, and a time to pluck up that which is planted . . .

One generation passeth away, and another generation cometh : but the earth abideth for ever.

The sun also ariseth, and the sun goeth down, and hasteth to the place where he ariseth . . .

The things that hath been, it is that which shall be ; and that which is done is that which shall be done : and there is no new thing under the sun.

To enumerate only a few of the elements that are, in the most drastic sense, *new*.

The growth of a domestic technology, resulting in the diminution of drudgery and the new "problem" of leisure. With the advent of automation, men may find themselves in the same position as their wives within the foreseeable future. The disappearance, necessarily, of the Protestant work-ethic.

The mass media. Music, once a concert-hall luxury or a clerical tool (like painting and architecture) for producing "religious" experiences, has become an ordinary element of consciousness. Cinema and television provide a steady source of fantasy and, more importantly, a vastly widened spectrum of models of behaviour. Modern adolescents can form their personalities on templates other than the most immediate.

The advent of a *mobile society*, due to advances in private and public transport. A consequent fragmentation of the visual world and the creation (by other influences as well) of a new internal landscape.

As mentioned above, the proliferation of the *megapolis*, and its extension along superhighways. Overpopulation and anomie. The necessity of bureaucratic regimentation in programmes of public welfare ; the depersonalisation and fragmentation of social experience.

III

DOUBTLESS, MANY OF the observations in the foregoing section will seem commonplace to readers of *NEW WORLDS*. A majority of the serious speculative thinkers of our

time (not the writers of fiction usually, but such men as Buckminster Fuller, Snow, McLuhan, and Mumford) have dealt with these same subjects more exhaustively and in greater depth. It is our intention only to point out that literary art has characteristically lagged behind in dealing with these elements of modern life, even sometimes in recognising them. When our best writers *have* recognised them, it has too often been to renounce them and turn from them to a past that is viewed as somehow more congenial and "humanistic". Lawrence's primitivism and Eliot's orthodoxy represent two popular alternatives to an acceptance of the present world.

There have been, since the time of Kafka, many writers who have made the effort to deal with the present on its own terms, though they have all suffered, to a greater or lesser degree, from the common uncertainty of our age as to what exactly those terms are. So much of the significance of the present lies not in the past but in the future, not in where we've been but where we're going. What, for instance, will be the final outcome of the process of automation, begun only in the last decade? We can be certain that its consequences will be enormous to a degree that few of the usual "events" of history—the changing fortunes of monarchs and nations—have been, but we can only speculate about those consequences. Indeed, we *must* speculate about them, for the actual events will have been the product, in part, of our present speculations. Prophecies are self-fulfilling.

ALREADY, SPECULATION (too often, alas, of the most timorous variety) has become the basis of decision-making in politics and economics. Manufacture could not be carried on without the assistance of battalions of computers engaged in projective calculations of seemingly incalculable trends. The present war in Viet Nam is presumably being conducted for similar computer-derived considerations, since morality and common expedience would seem to militate against it. It is not enough to inveigh against the advent of technocracy ; one must engage the forces of change on their own ground, and that ground is the future. The life of the present day

is based more and more on our expectations of life in the future. The past may have its lessons to teach, but they are, like lessons in Greek, superfluous—at best an adornment, at worst an escape.

To illustrate the process by which the prevision of the future can govern present performances we can turn to the conduct of the arts in the past half century, especially to music and painting, where there obtains, in Harold Rosenberg's phrase, a "tradition of the new". The great painters and composers of this century have produced their works not for an audience of their contemporaries but for their posterity. Immediate popular acceptance would be considered by most serious artists as tantamount to failure. Style succeeds style at an accelerating pace, and this not from a mere predilection for novelty, but because artists no longer conceive their task as creating new works but as shaping a *new sensibility*.

However, even the most prodigious artist cannot mould the character of generations unborn ; he can, at best, second-guess the future. With luck he will find that the new sensibility he has shaped in the forge of his art will coincide significantly with that of the future ; such "luck" is the very stuff of genius.

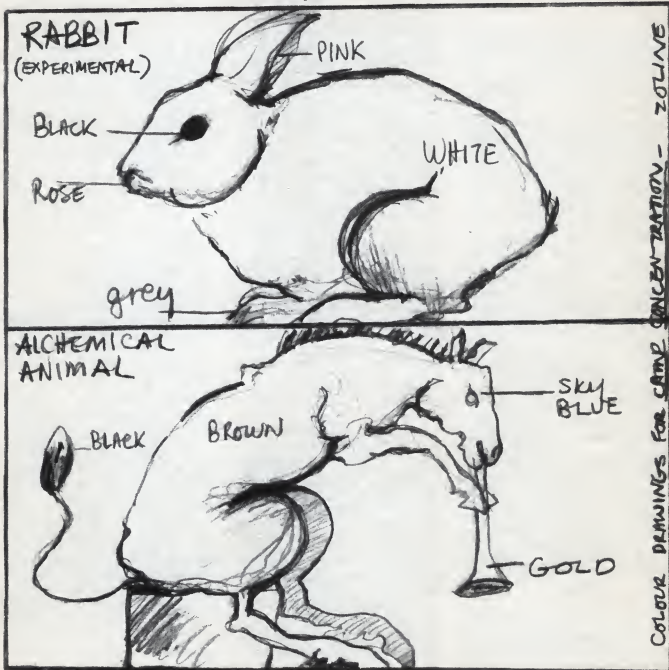
The case of the artist is not exceptional. In the Western world, as affluence and leisure become the common condition, as greater numbers of people fail to find in religion a satisfying world-view, it is to the arts that we turn for the patterns by which to form our lives. The new heroes of our culture are singers, actors, and sportsmen, these being the most *visible* kinds of artists.

The artist is not important because he is the centre of a new cult, but he finds himself in this position because he is important. The condition of the artist is representative of our common condition in being confronted with a future in which precedent is of so little assistance. We all stand in need of the "new sensibility" that can enable us to handle experiences and ideas for which nothing in our past lives has prepared us, and this sensibility can be won only by an act of sustained and informed imagination. It is to be hoped that this magazine can provide, in some degree, imaginative works that will fulfil this need.

CAMP CONCENTRATION

thomas m. disch

part one



COLOUR DRAWINGS FOR CAMP CONCENTRATION - ZOLIVE

May 13

YOUNG R.M., MY Mormon guard, has brought me a supply of paper at last. It is three months to the day since I first asked him for some. Inexplicable, this change of heart. Perhaps Andrea has been able to get a bribe to him. Rigor Mortis denies it, but then he would deny it. We talked politics, and I was able to gather from hints R.M. let drop that President McNamara has decided to use "tactical" nuclear weapons. Perhaps, therefore, it is to McNamara, not to Andrea, that I am indebted for this paper, since R.M. has been fretting these many weeks that General Sherman, poor General Sherman, had been denied adequate hitting power. When, as today, R.M. is happy, his fearful smile, those thin lips pulled back tightly across the perfect death's-head teeth, flickers into being at the slightest pretense of humour. Why do all the Mormons I have known have that same constipated smile. Is their toilet training exceptionally severe?

This is my journal. I can be candid here. Candidly: I could not be more miserable.

May 12

Journals, such as I have erewhile attempted, have a way of being merely exhortatory. I must remember, here, to be circumstantial from the start, taking as model that sublime record of prison existence, *The House of the Dead*. It should be easy to be circumstantial here: not since childhood has mere circumstance so tyrannised me. The two hours each day before dinner are spent in a Gethsemane of dread and hope. Dread lest we be served that vile spaghetti once again. Hope that there may be a good hunk of meat in my ladle of stew, or an apple for dessert. Worse than "chow" is each morning's mad spate of scrubbing and polishing to prepare our cells for inspection. The cells are as bony-clean as a dream of Philip Johnson (Grand Central Bathroom), while we, the prisoners, carry about with us the incredible, ineradicable smell of our stale, wasted flesh.

However: We lead here no worse a life than we would be leading now outside these walls had we answered our draft calls. Nasty as this prison is, there is this advantage to it—that it will not lead so promptly, so probably, to death. Not to mention the inestimable advantage of righteousness.

Ah, but who is this "we"? Besides myself there are not more than a dozen other conchies here, and we are kept carefully apart, to prevent the possibility of esprit. The prisoners—the *real* prisoners—hold us in contempt. They have that more sustaining advantage than righteousness—guilt. So our isolation, my isolation becomes even more absolute. And, I fear, my self-pity. There are evenings when I sit here *hoping* that R.M. will come by to argue with me.

Four months! And my sentence is for five years. . . . That is the Gorgon of all my thoughts.

May 13

I must speak of Smede. Warden Smede, my arch-enemy. Smede the arbitrary, who still refuses me library privileges, allows me only a New Testament and a Prayer Book. It is as though I had been left, as was so often threatened, for my summer vacation with the loathed Uncle Morris of my childhood (who counselled my parents that I would "lose my eyes" by reading too much). Bald, booming, fat with the fatness of a ruined athlete: Smede. One might despise him only for having such a name. Today I learned from the small portion of my monthly letter from Andrea that the censor (Smede?) had not blacked out that the proofs of *The Hills of Switzerland*, which had been sent to me here, were returned to the publisher with a note explaining the rules for correspondents with prisoners. That was three months ago. The book is in print now. It has been *reviewed*! (I suspect the publisher hurried so in the hope of getting a little free publicity from the trial.)

The censor, naturally, removed the review Andrea had enclosed. Agonies of vanity. For ten years I could lay claim to no book but my wretched Doctor's thesis on Winstanley; now my poems are in print—and it may be another five years before I'm allowed to see them. May Smede's eyes rot like potatoes in spring! May he convulse with the Malaysian palsies!

Have tried to go on with the cycle of "Ceremonies". Can't. The wells are dry, dry.

May 14

Spaghetti.

On nights like this (I write these notes after lights-out, by the glow of the perpetual 20-watter above the toilet bowl) I wonder if I have done the right thing in electing to come here, if I'm not being a fool. Is this the stuff of heroism? Or of masochism? In private life my conscience was never so conscientious. But, damn it, this war is *wrong*!

I had thought (I had convinced myself) that coming here voluntarily would be little different from joining a Trappist monastery, that my deprivations would be easily bearable if freely chosen. One of my regrets as a married man has always been that the contemplative life, in its more rarified aspects, has been denied me. I fancied asceticism some rare luxury, a spiritual truffle. Ha!

On the bunk beneath mine a Mafia petit bourgeois (snared on tax evasion charges) snores his content. Bed-springs squeak in the visible darkness. I try to think of Andrea. In high school Brother Wilfred counselled that when lustful thoughts arose we should pray to the Blessed Virgin. Perhaps it worked for him.

May 15

Nel mezzo del camin di nostra vita indeed! My 35th birthday, and a slight case of the horrors. For a few moments this morning, before the metal shaving mirror, my double, Louie II, was in the ascendant. He mocked

and raged and muddled the banner of faith, not to mention hope (already quite muddy these days), with his scurrilities. I remembered the dismal summer of my 15th year, the summer that Louie II was in sole possession of my soul. Dismal? Actually, there was a good deal of exhilaration in saying *Non serviam*, an exhilaration that is still confused with my first memories of sex.

Is my present situation so very much different? Except that now, prudently, I say *Non serviam* to Caesar rather than to God.

When the chaplain came by to hear my confession I didn't speak of these scruples. In his innocence he would have been apt to take the side of the cynical Louis II. But he has learned by now not to employ the meagre resources of his casuistry against me (another retrograde Irish Thomist, he) and pretends to accept me at my own moral valuation. "But beware, Louis," he counseled, before absolving me, "beware of intellectual pride." Meaning, I have always supposed, beware of intellect.

How to distinguish between righteousness and self-will? Between the two Louies? How, once committed, to stop *questioning*? (That is the question.) Does someone like R.M. have such problems? He gives the impression of never having had a doubt in his whole life—and Mormons seem to have so much more to doubt.

I am being less than charitable. Those wells, too, are drying up.

May 16

We were sent out of prison today on a detail to cut down and burn blighted trees. A new virus, or one of our own, gone astray. The landscape outside the prison is, despite the season, nearly as desolate as that within. The war has at last devoured the reserves of our affluence and is damaging the fibres of the everyday.

Returning, we had to file through the clinic to get our latest inoculations. The doctor-in-charge held me back after the others had left. A moment's panic: had he recognised in me the symptoms of one of the war's new diseases? No, it was to show me the review of *The Hills of S!* Bless, bless. Mons in *New Dissent*. She liked it (hurray) though she took exception, expectably, to the fetish poems. She also missed the references to Rilke, which I so laboured over. Weh! While I read the review the good doctor injected what seemed like several thousand c.c.'s of bilgy ook into my thigh; in my happiness I scarcely noticed. A review: I am *real*! Must write a letter to Mons, thanking her. Perhaps R.M. will mail it for me. Maybe I'll even be able to start writing again.

May 17

The two faggots with whom, grudgingly, the Mafia and I share our cell (it is not, you will observe, *theirs*) are suddenly not speaking to each other. Donny sits on the can all day and tinkles blues. Peter broods butchly on his bunk. Occasionally Donny would address a loud complaint to me, concerning Peter's promiscuities, real

or imagined. (When do they find opportunities for unfaithfulness?) Donny, younger and black, is feminine, even in his bitchiness, which is skilled and futile. Peter, at thirty, is still rather handsome, though his face has a seamy, second-hand look. They are both here on narcotics charges, though it is Peter's distinction that he once stood trial for murder. One gets the impression that he regrets having been acquitted. Their passion has too much of the element of necessity about it to be quite convincing: If you were the only boy in the world, and I were the only other. Now who's being bitchy?

I must say, though, that I find this sort of thing more palatable at second-hand—in Genet, for instance. My liberality balks before the real thing.

So there is, in this context, an advantage in being as fat as I am. No one in his right mind would lust after *this* body.

I had thought once of doing an inspirational book for fat people, called *Fifteen Famous Fatsos*. Dr. Johnson, Alfred Hitchcock, Salinger, Thomas Aquinas, Melchior, Buddha, Norbert Wiener, etc.

The bedsprings are quiet tonight, but ever and again, between the Mafia's snores, Donny or Peter heaves a sigh.

May 18

An hour this evening with young Rigor Mortis. The epithet may be unjust, since R.M. is the nearest thing to a friend that I've found here. He is, for all his orthodoxies, serious-minded, a man of good will, and our talks are, I hope, more than exercises in rhetoric. For my own part, I know that I feel, beyond my evangelistic urge to bring him round, an almost desperate desire to understand him, for it is R.M. and his like who perpetuate this incredible war, who believe, with a sincerity I cannot call into doubt, that in doing so they perform a moral action. Or am I to accept the thesis of our neo-Millsians (neo-Machiavellians, rather), who maintain that the electorate is simply practised upon, the groundlings of this world drama, that their secret masters in the Olympus of Washington mould their opinions as easily as they (admittedly) control the press?

I might even wish that were so: if persuasion were so easy a task, perhaps the few voices of righteousness might hope to have some effect. But it is a fact that not I nor anyone I've known on the Committee for a Unilateral Peace has ever convinced anyone of the folly and immorality of this war who was not at heart already of like mind, who needed no convincing but only our reassurances.

Perhaps Andrea is right; perhaps I should leave the war to the politicians and the propagandists—the experts, as they are called. (Just so, Eichmann was noted as an "expert" on the Jewish problem. After all, he spoke Yiddish!) Abandon controversy that I may consecrate my talents exclusively to the Muses.

And my soul, then, to the Devil?

No, though opposition is a hopeless task, acquiescence

would be worse. Consider Youngerman's case: *he* acquiesced, he left well enough alone, he muzzled conscience. Did irony sustain him? Or the Muses? When you rise to deliver a commencement address and half the audience walks out, where is your lofty indifference then, O poet? And his last book—so bad, so bad!

But Youngerman at least knew the meaning of his silence. When I speak to R.M. the language itself seems to alter: I grasp at meanings and they flit away, like minnows in a mountain stream. Or, a better metaphor, it is like one of those secret doors that one used to see in horror movies. It appears to be part of the bookcase but when the hidden spring is released it turns around and its reverse side is a rough stone face. Must try and develop that image.

The last word on R.M.: we do not and, I fear, we cannot understand each other. I sometimes wonder if the reason isn't very simply that he's very stupid.

May 19

The muse descends—characteristically assuming the mortal guise of an attack of diarrhea, abetted by headache. Auden observes somewhere (in the "Letter to Lord Byron"?) how often a poet's finer flights are due/rumpty-tumpty-tumpty to the flu.

Though a small paradox, it should go without saying that I have not felt so well in months. In honour of the occasion, I will transcribe my little poem (the slightest of lyrics, but Lord! how long it has been since the last one):

The Silkworm Song
How can I possibly Be ready to enter
That cedarwood box Isn't it obvious
It isn't time
I'm in my prime
The dew is scarcely dry Behind my ears
Words cannot describe My tears
And the singing
Listen to it
The very stones are dumb With ecstasy
How can I possibly Go down
In that darkness Leaving my soul behind
Listen to the singing Butterflies
And broken pots
Come into the box
No no I may not Stop the spinning
Of butterflies and broken pots O stop

(Here the handwritten portion of Louis Sacchetti's journal ends. All the following passages were typed on a different size and stock of paper.—Ed.)

June 2

I AM BEING held prisoner! I have been kidnapped from the prison where I by law belong and brought to a prison in which I do not belong. Legal advice is denied me. My protests are ignored with maddening blandness. Not since the playground tyrannies of childhood have the rules of the game been so utterly and arrogantly

abrogated, and I am helpless to cope. To whom shall I complain? There is not even a chaplain in this place, I'm told. Only God hears me now, and my guards.

In Springfield I was a prisoner for a stated reason, for a fixed term. Here (wherever that may be) nothing is stated, there are no rules. I demand incessantly to be returned to Springfield, but the only answer I receive is to have waved in my face the slip of paper that Smede signed approving my transfer. Smede would have approved my being gassed, if it came to that. Damn Smede! Damn these new anonymities in their spiff, black, unidentifying uniforms! Damn me, for having been fool enough to place myself in a situation where this sort of thing can happen. I should have been foxy, like Larkin or Revere, and faked a psychosis to stay out of the army. This is where all my fucking prissy morality gets me: fucked!

What caps it off is this: the aged mediocrity before whom I am regularly brought for interviews has asked me to keep a record of my experience here. A journal. He says he admires the way I write! I have a real gift for words, this aged mediocrity says. Ye Gods!

For over a week I tried to behave like a proper prisoner-of-war—name, rank and Social Security number—but it's like the hunger strike I attempted way back when in the Montgomery jail: people who can't diet four days running shouldn't attempt hunger strikes.

So here's your journal, aged asshole: you know what you can do with it.

June 3

He thanked me, that's what he did. He said, "I can understand that you find all this very upsetting, Mr. Sacchetti." (Mr. Sacchetti, yet!) "Believe me, we want to do everything in our power here at Camp Archimedes to make the transition easier. That's my Function. Your Function is to observe. To observe and interpret. But there's no need to start right away. It takes time to adjust to a new environment, I can certainly understand that. But I think I can safely, say that once you have made that adjustment you'll enjoy your life here at Camp Archimedes far more than you would have enjoyed Springfield — or than you've enjoyed Springfield in the past. I've read the few notes you kept there, you know—"

I interrupted to say that I *didn't* know.

"Ah, yes, Warden Smede was kind enough to send them along, and I read them. With great interest. In fact, it was only at my request that you were allowed to begin that journal. I wanted a sample of your work, so to speak, before I had you brought here.

"You really presented a very harrowing picture of your life in Springfield. I can honestly say I was shocked. I can assure you, Mr. Sacchetti, that *here* you'll suffer no such harassments. And there's none of that disgusting hanky-panky going on here either. I should think not! You were *wasting* yourself in that prison, Mr. Sacchetti; it was no place for a man of your

intellectual attainments. I am myself something of an Expert in the R & D department. Not maybe what you'd call a Genius, exactly, I wouldn't go as far as that, but an Expert certainly."

"R & D?"

"Research and Development, you know. I have a nose for talent, and in my own small way, I'm rather well known. Inside the field. Haast is the name, Haast with a double A."

"Not *General* Haast?" I asked. "The one who took that Pacific island?" My thought, of course, was that the army had got me after all. (And for all I know that may yet be the case.)

He lowered his eyes to the surface of his desk. "Formerly, yes. But I'm rather too old now, as I believe you have yourself pointed out, eh?" Looking up resentfully. "Too aged . . . to remain in the Army." He pronounced *aged* as a single syllable.

"Though I have preserved a few Army ties, a circle of friends who still respect my opinion, aged as I am. I am surprised that *you* associate my name with Auau. 1944 was rather before your time."

"But I read the book, and that came out in . . . when? . . . 1955." The book I referred to, as Haast knew at once, was Fred Berrigan's *Mars in Conjunction*, a very slightly fictionalized account of the Auau campaign. Years after the book appeared I met Berrigan at a party. A splendid, intense fellow, but he seemed to be sweating doom. That was just a month before his suicide. All of which is another story.

Haast glowered. "I had a nose for talent in those days too. But talent sometimes goes hand-in-glove with treason. However, there is no point in discussing the Berrigan affair with you, as you've obviously made up your mind."

He returned then to the Welcome Wagon bit: I had the run of the library; I had a fifty dollar weekly allowance (!) to spend at the Canteen; movies on Tuesday and Thursday night; coffee in the lounge; that sort of thing. Above all, I must feel free, feel free. He refused, as he always had before, to explain where I was, why I was there, or when I might expect to be released or sent back to Springfield.

"Just keep a good journal, Mr. Sacchetti. That's all we ask."

"Oh, you can call me Louie, General Haast."

"Why, thank you . . . Louie. And why don't you call me H.H.? All my friends do."

"H.H."

"Short for Humphrey Haast. But the name Humphrey has the wrong associations in these less liberal days. As I was saying—your journal. Why don't you go back and fill in where you left off, when you were brought here. We want that journal to be as thorough-going as possible. Facts, Sacchetti—excuse me, Louie—*facts!* Genius, as the saying goes, is an infinite capacity for taking pains. Write it as though you were trying to explain to someone outside this . . . camp . . . what was happening

to you. And I want you to be brutally honest. Say what you think. Don't spare *my* feelings."

"I'll try not to."

A wan smile. "But try and keep one principle in mind always. Don't become too, you know . . . obscure? Remember, what we want is facts. Not . . ." He cleared his throat.

"Poetry?"

"Personally, you understand, I have nothing against poetry. You're welcome to write as much of it as you like. In fact, do, do, by all means. You'll find an appreciative audience for poetry here. But in your journal you must try to make sense."

Fuck you, H.H.

(I must here interpose a childhood memory. When I was a paperboy, at about age 13, I had a customer on my route who was a retired Army officer. Thursday afternoon was collection day, and old Major Youatt would never pay up unless I came into his dim, mementoes living room and heard him out. There were two things he liked to soliloquize about: women and cars. On the first subject, his feelings were ambivalent; an itchy curiosity about my little girlfriends alternated with oracular warnings about V.D. Cars he liked better: his eroticism was uncomplicated by fear. He kept pictures of all the cars he had ever owned in his billfold, and he would show them to me, tenderly gloating, an aged lecher caressing the trophies of past conquests. I have always suspected that the fact that I was 29 years old before I learned to drive a car derived from my horror of this man.)

The point of the anecdote is this—that Haast is the mirror-image of Youatt. They are cut with the same template. The key word is Fitness. I imagine Haast still does twenty push-ups in the morning and rides a few imaginary miles on his Exercycle. The wrinkly crust of his face is crisped to a tasty brown by a sunlamp. His sparse and greying hair is crewcut. He carries to an extreme the maniacal American credo that there is no death.

And he is probably a garden of cancers. Isn't that so, H.H.?)

Later:

I have succumbed: I went to the library (of Congress? It is *vast!*) and checked out some three dozen books, which now grace the shelves of my room. It is a room, not a cell at all: the door is left open day and night, if there can be said to be a day and night in this unwind-ded, labyrinthine world. What the place lacks in windows it makes up in doors: there are infinite recessions of white, Alphaville hallways, punctuated with numbered doors, most of them locked. A regular Bluebeard's castle. The only doors I found open were to rooms identical to mine, though apparently untenanted. Am I in the vanguard? A steady purr of air-conditioners haunts the hallways and sings me, to sleep at, as the saying goes, night. Is this some deep Pellucidar? Exploring

the empty halls, I oscillated between a muted terror and a muted hilarity, as one does at a slightly unconvincing but not incompetent horrorshow.

My room (you want facts, you'll get facts):

I love it. Look at how dark
it is. One might almost call it stark.
The white paint is no longer white.
It is more like moonlight
than like white paint.
I almost faint,
looking at it.
I think it is yellow,
but I am unable to say.

H.H. isn't going to be happy, I can tell. (Honestly, H.H., that just happened.) For instant poetry it doesn't quite come up to the level of "Ozymandias", but in all modesty I will be satisfied with less, yes.

My room (let's try it again):

Off-white (there's the difference, in brief, between fact and poesy); original abstract oil paintings on these off-white walls, in the impeccable corporate taste of the New York Hilton, paintings as neutral in content as blank walls or Rorschach cards; expensive Danish-Mod slabs of cherrywood tricked out here and there with cheery, striped, cubical cushions; an Acrilan carpet in off-ochre; the supreme luxury of wasted space and empty corners. I would estimate that I have 500 square feet of floor space. The bed is in its own little el and can be screened from the main body of the room by rapid, flowery drapes. There is a feeling that all four off-white walls are of one-way glass, that every drooping milky globe of light masks a microphone.

What gives?

A question that is on the tip of every guinea pig's tongue.

The man who stocks the library has more exquisite taste than the interior decorator. For: there was not one, not two, but three copies of *The Hills of Switzerland* on the shelf. Even, so help me God, a copy of *Gerald Winstanley, Puritan Utopist*. I read *Hills* through and was pleased to find no misprints, though the fetish poems had been put in the wrong order.

Still later:

I have been trying to read. I take up a book, but after a few paragraphs it loses my interest. One after another, I set aside Palgrave, Huizinga, Lowell, Wilenski, a chemistry text, Pascal's *Provincial Letters* and Time Magazine. (We are, as I suspected, using tactical nuclear weapons now; two students were killed in a protest-riot in Omaha.) I haven't felt a like restlessness since my sophomore year at Bard, when I changed my major three times in one semester.

The giddiness infects my whole body; there is a hollowness in my chest, a dryness in my throat, an altogether inappropriate inclination to laughter.

I mean, what's so funny?

June 4

A soberer morning-after.

As Haast requests, I will recount the events of the interim. May they be used in evidence against him.

The day after "The Silkworm Song"—that would be May 20—I was still sick and had remained in the cell while Donny and Peter (already reconciled) and the Mafia were out on a work detail. I was summoned to Smede's office to receive at his hand the package containing my personal effects. He made me check it item for item against the inventory that had been drawn up the day I'd entered prison. Searing blasts of hope, as I imagined that some miracle of public protest of judicial conscience had set me free. Smede shook my hand, and, delirious, I *thanked* him. Tears in my eyes. The son of a bitch must have been enjoying himself.

He handed me over then, with an envelope the same sickly yellow colour as my prisoned flesh (this was the Sacchetti Dossier, surely) to two guards in black uniforms, trimmed in silver, very Germanic and, as we used to say, tuff. Calf-high boots, leather straps that formed a veritable harness, mirror-sunglasses, the works: Peter would have groaned with envy, Donny with desire. They said not a word but went straight to their work. Handcuffs. A limousine with curtains. I sat between them and asked questions of their stone faces and shielded eyes. An airplane. Sedation. And so, by a route unmarked even by breadcrumbs, to my comfy little cell in Camp Archimedes, where the witch feeds me very good meals. (I have only to ring a bell for room service.)

I arrived here, I'm told, the 22nd. First interview with H.H. the next day. Warm reassurances and obstinate mystifications. As noted, I remained non-communicative until the 2nd of June. Those nine days passed in an Empyrean of paranoia, but that, like all passions, ebbed, diminished to an ordinary humdrum horror, thence to an uneasy curiosity. Shall I confess that there is a kind of pleasure to be had in the situation, that a strange castle is rather more interesting than the same old dungeon all the time?

But confess it to whom? To H.H.? To Louie II, whom I must confront in the mirror almost every day now?

No, I shall pretend that this journal is just for me, my journal. If Haast wants a copy, Haast will have to supply me with carbon paper.

Later:

I wonder, reading over "The Silkworm Song", if the fifth line is quite right. I want an effect of disingenuous pathos; perhaps I've achieved no more than a cliché.

June 5

Haast informs me, by Inter-Office Memo, that the electric typewriter I use is part of a Master-Slave hookup that automatically produces, in another room, second, third and fourth impressions of everything I type. H.H. gets his *Journal* fresh off the press—and think of all the money he saves not having to supply me

on carbon paper.

Today, the first evidence that there is that here which merits chronicling:

On the way to the library to get tapes to play on my hi-fi (a B&O, no less) I encountered one of the spirits inhabiting this circle of my new hell, the first circle, if I am to go through them in a proper, Dantean order—Limbo—and he, stretching the analogy a bit farther, would be the Homer of this dark glade.

Dark it was, for the fluorescent fixtures had been removed from this length of corridor, and as in a glade a constant and chill wind swept through the pure Euclidean space, some anomaly in the ventilating system, I suppose. He stood there blocking my way, his face buried in his hands, cornsilk-white hair twined about the nervous fingers, swaying and, I think, whispering to himself. I approached quite close, but he did not rouse from his meditation, so I spoke aloud: "Hello there."

And when even this drew no response, I ventured further. "I'm new here. I was a prisoner at Springfield, a conchy. I've been brought here illegally. Though God knows to what purpose."

He took his hands from his face and looked at me, squint-eyed, through the tangled hair. A broad, young face, Slavic and ingenuous—like one of the second-string heroes in an Eisenstein epic. The broad lips broadened in a chill, unconvinced smile, like a stage moonrise. He lifted his right hand and touched the centre of my chest with three fingers, as though to assure himself of my corporeality. Assured, the smile became more convinced.

"Do you know," I asked urgently, "where we are? Or what's to be done with us?"

The pale eyes looked from side to side—in confusion or fear, I could not tell.

"What city? What state?"

Again, that wintry smile of recognition, as my words bridged the long distance to his understanding. "Well, the nearest any of us can tell, we're in the mountain states. Because of Time, you know." He pointed to the magazine in my hand. He spoke in the most nasal of mid-western voices, in an accent unmodified by education or travel. He was in speech as in looks a model Iowa farmboy.

"Because of Time?" I asked, somewhat confused. I looked at the face on the cover (General Phee Phi Phum of North Malaysia, or some other yellow peril), as though he might explain.

"It's a regional edition. Time comes out in different regional editions. For advertising purposes. And we get the mountain states edition. The mountain states are Idaho, Utah, Wyoming, Colorado. . . ." He named their names as though twanging chords on a guitar.

"Ah! Yes, I understand now. Slow of me."

He heaved a deep sigh.

I held out my hand, which he regarded with undisguised reluctance. (There are parts of the country, the West Coast especially, where because of the germ war-

fare the handshake is no longer considered good form.) "The name's Sacchetti. Louis Sacchetti."

"Ah! Ah yes!" He took hold of my hand convulsively. "Mordecai said you were coming. I'm so glad to meet you. I can't express—" He broke off, blushing deeply, and pulled his hand out of mine. "Wagner," he mumbled, as if an afterthought. "George Wagner." Then, with a certain bitterness, "But you would never have heard of me."

I've encountered this particular form of introduction so often at readings or symposia, from other little-magazine writers or teaching assistants, smaller fry even than myself, that my response was almost automatic: "No, I'm afraid I haven't, George. Sorry to say. I'm surprised, as a matter of fact, that you've heard of me."

George chuckled. "He's surprised. . . ." he drawled, ". . . as a matter of fact. . . that I've heard of him!"

Which was no little disconcerting.

George closed his eyes. "Excuse me," he said, almost whispering. "The light. The light is too bright."

"This Mordecai that you mentioned. . . ?"

"I like to come here because of the wind. I can breathe again. Breathing the wind. Here." Or perhaps what he said was, "Hear", for he went on: "If you're very quiet you can hear their voices."

It was indeed very quiet, but the only sound was the seashell roaring of the air-conditioners, the gloomy blasts of chill air through the chambered corridor.

"Whose voices?" I asked with a certain trepidation.

George furrowed his white brows. "Why, the angels, of course."

Mad, I thought—and then realized that George had been quoting my own poem to me—the paraphrase-cum-parody I'd done of the Duino Elegies. That George, this ingenuous Iowa boy, should so lightly toss off a line from one of my uncollected poems was even more disconcerting than the simpler supposition that he was off his nut. "You've read that poem?" I asked.

George nodded and the tangle of cornsilk crept down over pale eyes, as though from shyness.

"It isn't a very good poem."

"No, I suppose not." George's hands, which had till now been preoccupied with each other behind his back, began to creep back up to George's face. They reached up to push the drooping hair from his eyes, then stayed atop his head, as though snared. "But it's true anyhow. . . you *can* hear their voices. Voices of silence. Or the breath, it's the same thing. Mordecai says that breath is poetry too." The hands slowly came down in front of the pale eyes.

"Mordecai?" I repeated, with some urgency. I could not then, I still cannot, shake off the feeling that I've heard that name elsewhere, elsewhere.

But it was like speaking to someone in a boat that the current was ineluctably bearing away. George shuddered. "Go away," he whispered. "Please."

But I did not, not at once, go away. I stood there before him, though he seemed to have become quite ob-

livious of me. Gently he rocked back and forth, from his heels to the balls of his feet, then back on his heels. His fine hair stirred in the steady hissing exhalation from the ventilator.

He spoke aloud to himself, but I could only catch a little of what he said. "Linkages of light, corridors, stairways. . . ." The words had a familiar ring, but I could not place them. "Spaces of being and shields of bliss."

Abruptly he took his hands from his face and stared at me. "Are you still there?" he asked.

And though the answer was self-evident, I said that, yes, I was still here.

In the semi-darkness of the corridor his pupils had dilated, and it was this perhaps that made him seem so sad. Again he laid three fingers on my chest. "Beauty," he said solemnly, "is nothing but the beginning of a terror that we are able barely to endure." And with those words George Wagner heaved up the entirety of a considerable breakfast into that pure Euclidean space. Almost at once the guards were about us, a brood of black mother-hens, giving George a mouth rinse, mopping up and conducting us our separate ways. They gave me something to drink too. A tranquilizer, I suspect; else, I should not have the presence of mind yet to document the encounter.

What a strange fellow he was though! A farmboy quoting Rilke. Farmboys might recite Whittier perhaps, or even Carl Sandburg. But the *Duineser Elegien*?

June 6

ROOM 34:

solid stainless steel numbers pasted to a prosaic blond-wood door, and beneath in white letters graven on a rectangle of black plastic (like those that show a bank teller's name on one side and NEXT WINDOW PLEASE on the other):

DR. A. BUSK.

My guards led me within and entrusted me to the severe tutelage of the two chairs, which, webs of black leather slung from bands of chromed steel, were but the abstractions—an attar, as it were—of the guards themselves. Chairs by Harley-Davidson. Hard-edge paintings (chosen for the pleasures of such chairs) flattened themselves against the walls, yearning to become invisible.

Dr. A. Busk strides into the room and threatens me with her hand. Am I to shake it? No, she is only motioning me to be seated. I am seated, she is seated, crossing her legs, snack-snack, pulling at the hem of her skirt, smiling. It is a credible if not a kindly smile, a little too thin, too crisp. The high, clear brow and reticent eyebrows of an Elizabethan noblewoman. Forty years old? More likely forty-five.

"Excuse me if I do not offer you my hand, Mr. Sacchetti, but we'll get on much better if we dispense with that kind of hypocrisy from the beginning. It's not as though you were spending your vacation here, is it? You are a prisoner, and I am . . . what? I am the prison. That's the beginning of an honest, if not altogether

pleasant relationship."

"By honest do you mean that I shall be allowed to insult you as well?"

"With impunity, Mr. Sacchetti. Tit for tat. Either here or at your leisure, in your journal. I am sent the second copy, so you can be certain that anything unpleasant you have to say will not be in vain."

"I'll keep it in mind."

"Meanwhile, there are a few things you should know about what we are doing here. Yesterday you met young Wagner, but in your journal you pointedly refrained from any kind of speculation concerning his rather remarkable behaviour. Though you certainly must have given the matter some thought."

"I certainly must have."

Dr. A. Busk pursed her lips and tapped a ragged fingernail on the envelope clipped to her clipboard—the Sacchetti Dossier again. "Do let's be candid, Mr. Sacchetti. It must have occurred to you that young George's behaviour was not wholly consistent, and you must have associated these inconsistencies with certain remarks concerning your role here that my colleague, Mr. Haast, has let drop. Not, I may point out, accidentally. You must, in short, have come to suspect that young George is the subject—one of the subjects—in an experimental programme that is being carried out here?" She raised a reticent, questioning eyebrow. I nodded.

"You could not have guessed—and perhaps it will ease your mind to learn?—that young George is here voluntarily. You see, he deserted the Army while on furlough in Taipei. The usual sordid sort of thing with a soldier and a prostitute. Of course he was found and court-martialled. His sentence was five years imprisonment, a mild sentence, you must admit. Had we been officially at war, he might have been shot. Yes, quite likely."

Then it is the Army that's kidnapped me?"

"Not exactly. Camp Archimedes is operated under a grant from a private foundation, though to preserve the necessary secrecy we are quite autonomous. Only one officer of the foundation knows the exact nature of our research. For the rest of them—and for the Army—we come under that all-inclusive category of weapons development. A good many of the personnel—most of the guards, and I myself—have been borrowed, as it were, from the Armed Services."

With that knowledge, all her attributes—the scrubbed face, the stiff manner, the defeminized voice—coalesced into a viable image: "You're a WAC!"

In reply she made an ironic salute. "So, as I was saying, poor George went to the brig, and he wasn't happy there. He could not, as my colleague, Mr. Haast, is wont to say, adjust to a brig environment. When the opportunity came for him to volunteer for Camp Archimedes he leaped at it. After all, most experiments these days are in the field of immunology. Some of the new diseases are extremely unpleasant. That's young

George's story. The other subjects you will meet have analogous backgrounds."

"This subject doesn't."

"You are not, precisely, a subject. But to understand just why you've been brought here, you must first understand the purpose of the experiment. It is an investigation of learning processes. I need not explain to you the fundamental importance of education with respect to the national defence effort. Ultimately it is intelligence that is a nation's most vital resource, and education can be seen as the process of maximising intelligence. However, as such it is almost invariably a failure, since this primary purpose is sacrificed to the purpose of socialization. When intelligence is *maximized*, it is almost always at the expense of the socialization process—I might cite your own case in this respect—and so, from society's point of view, little has been gained. A cruel dilemma."

"It is perhaps the chief mission of the science of psychology to resolve this dilemma—to maximize intelligence without vitiating its social utility. I hope that's clear?"

"Cicero himself had not so pure a Latin style."

La Busk crinkled her high, unpencilled brows, not getting the point, then, deciding it wasn't worth her while to pursue it, mere a-social levity, unfurrowed and continued:

"And therefore we are exploring certain new educational techniques here, techniques of adult education. In an adult the socializing process has been completed. Few subjects exhibit marked character development after twenty-five. Therefore, if the process of intelligence-maximization can be initiated then—if the stultified creative faculties can be reawakened, so to speak—then we may begin to exploit that precious resource, the mind, as it has never been exploited before."

"Unhappily we have been given what amounts to defective materials to work with. When one must rely upon Army brigs, for experimental subjects, one introduces a systematic error into the work, since for such people the process of socialization was clearly unsuccessful. And to be quite candid, it's my opinion that this error in selection is already having its unhappy consequences. I hope you note that down in your journal."

I assured her that I would. I couldn't refrain then—little as I wanted to give her the satisfaction of seeing how much she had piqued my curiosity—from asking: "By new educational techniques, am I to assume you mean drugs?"

"Ah ha. Then you have been giving the matter some thought. Yes, certainly, drugs. Though not in the sense you perhaps suppose. There are, as any college freshman these days knows, drugs available from extralegal sources that can temporarily assist memory retention by as much as two hundred per cent, or speed up other learning processes proportionally. But the learning curves flatten out with continued use of such drugs, and one soon reaches the point of diminishing returns, and

finally no returns at all. There are such drugs, and there are others too, such as LSD, which can produce a specious sense of omniscience. I needn't tell you of such drugs though, need I, Mr. Sacchetti?"

"Is that down on my profile? I must say you've been thorough."

"Oh, there's very little we don't know about you, sir. Before you were brought here you may be sure we examined every dirty little cranny of your past. It wouldn't do to bring just any conchy here, you know. We had to be certain you were harmless. We know you inside and out. Your schools, relatives, friends, what you've read, where you've been. We know what room you occupied in every hotel you stayed at in Switzerland and Germany when you had your Fulbright. We know every girl you dated at Bard and afterward, and just how far you got with each. And it hasn't been a very good showing, I must say. We know, in considerable detail, just how much you've earned during the last fifteen years, and how you've spent it. Any time the government cares to, it can send you right back to Springfield on tax evasion charges. We have the records from your two years of psychotherapy."

"And have you bugged the confessionals as well?"

"Only since you came to Springfield. That's how we found out about your wife's abortion and your nasty little affair with that Miss Webb."

"Good-looking though, wasn't she?"

"If you like weak types. But to get back to business: your task here is quite simple. You will be allowed to circulate among the subjects, to speak with them, to share, as far as possible, their day-to-day life. And to report, in brief compass, the matters with which they are preoccupied, their amusements and your own estimation of the . . . what shall I say? . . . of the intellectual climate here. I suspect you will enjoy the work."

"Perhaps. But why me?"

"One of the subjects recommended you. Of the various candidates we considered, you seemed most apt for the work—and certainly the most available. In all honesty it must be said that we have been having . . . communications problems with the subjects. And it was their ringleader—Mordecai Washington his name is—who suggested that you be brought here to act as a sort of go-between, an interpreter. Do you remember Mordecai? He went to the same high school you did for one year—'55."

"Central High School? The name seems vaguely familiar, but I can't place it. I may have heard it read off of some attendance sheet, but he certainly wasn't a friend. I never had so many that I'm apt to forget their names."

"You'll have ample opportunity to repair that omission here then. Are there any more questions?"

"Yes. What does the A. stand for?"

She looked blank.

"In *Dr. A. Busk*," I clarified.

"Oh, that. It stands for Aimée."

"And which private foundation is supplying the cash for this place?"

"I could tell you, but really, Mr. Sacchetti, don't you think you'd be better off not knowing? The subjects have been instructed that there are certain things which, for your own sake, it would be better that they not discuss with you. Because you will, I presume, want to leave here sometime, won't you?"

Dr. Aimée Busk unbuttoned her legs with a slither of nylon and stood up. "The guards will be here directly to take you back upstairs. I shall see you again next week at the latest. In the meantime, feel free to come and ask me any question that you're certain you want to have the answers to. Good-day, Mr. Sacchetti." With three brisk scissor-steps she left the room. Having scored all the points for *that* round.

Later:

Within an hour after I'd typed this journal entry, a note came from H.H. "She's thirty-seven. H.H."

Interdepartmental rivalries? (Don't answer that question.)

June 7

I HAD THOUGHT my migraines, being so clearly psychosomatic, had been exorcised by my psychotherapy, but they returned last night with a vengeance. Where one had been there now are seven. Perhaps La Busk, being an initiate to the mysteries, was able to work some counter-magic to Dr. Mieris's cure; perhaps it was simply that I stayed up past two o'clock in a fit of scribbling. I don't yet have enough distance from it to judge whether the poem was worth such a price. Though who knows? Perhaps it was the migraine brought on the poem.

So much for the life of the mind; the notable event of the day was the visitation, shortly after breakfast (at noon) of the fabled Mordecai Washington. He came unannounced by any guard, knocked but didn't wait to be invited in. "May I?" he asked, having already done so.

Even face to face, even with his voice, his loud voice, thudding against my migraine, I did not recognise him as my supposed high school friend, as anyone.

A first impression: he is not good-looking. I'll admit my standards of beauty are ethnocentric, but I don't think many Negroes would find Mordecai Washington good-looking either. Very dark he is, well-nigh purplish. Long in the face, with a jaw that juts and blub lips (flattened against the plane of the face, however, rather than protruding; vertical lips, one might call them), a minimal nose, and tousley neo-Maori hair. A chest that would a century past have been called consumptive, negligible shoulders, bandy legs, clodhopper feet. A gravelly rasp of a voice, like Punch in a puppet show. Handsome eyes, however (though it's always easy to concede that to ugly people).

Even so, I will insist that he has extraordinary eyes,

at once moist and lively, suggesting depths but never revealing them, oxymoronal eyes.

"No, stay where you are," he insisted, when I began to climb out of bed. He dragged a chair across the room to my bedside. "What are you reading? Ah, a picture book. You've been here all this while, and no one told me. I found out from George. It's a pity, but then I've been temporarily. . . ." He waved a hand above his head vaguely. (His hands, like his feet, were disproportionately big. Fingers splayed at the tips like a workman's, but quick, almost fluttery. His gestures tend to be over-dramatic, as though to compensate for his deadpan face.) ". . . defunct. Inert. Moribund. Comatose. But that's all over now. And you're here. I'm glad. I am. Mordecai Washington."

Gravely, he offered me his hand. I could not help sensing a certain irony in this gesture, as though in accepting it I were serving as his straight-man.

He laughed, shrill parrot-laughter pitched two octaves higher than his speaking voice. It was as though another person did his laughing for him. "Oh, you can touch it. I won't give you any god-damn germs. Not that way, boss."

"It hadn't even occurred to me . . . Mordecai." (I have never been able to use first names with strangers readily.)

"Oh, I didn't expect you'd remember me. Don't feel bad on that account. And you don't have to tutoy me, yet." This, in abysmal French. "But I've remembered you. Eidetically, the way you remember a particular moment from a horror movie. *Psycho*, for instance? Remember *Psycho*?"

"Yes, the bathtub sequence. Was I like Tony Perkins in those days? God forbid."

"You were terrifying enough in your own way. To me. We were in the same homeroom. Miss Squinlin, remember her?"

"Miss Squinlin! Yes, I hated that woman."

"Fat old red-faced cunt—I hated her a hell of a lot more than you ever did, brother. I had her for English 10-C. *Silas Marner*, *Julius Caesar*, *Rhyme of the Ancient Mariner*. Jesus Christ, I almost stopped speaking the fucking language, she made me hate it so."

"You still haven't explained what I had in common with *Psycho*."

"Well, let's say *Donovan's Brain* instead. A brain in a glass tank. The octopus-intellect sniffing off after scholarships, knowing all the answers, devouring all the shit that the Squinlins could shovel in. The cerebrum as Cerberus." He spoiled the cleverness of this by mispronouncing both words.

"And when you wanted to, you could put *down* people like old Squinlin. Me, I just had to sit there and take their shit. I knew it was shit, but what could I do? They had me coming and going."

"The thing about you that's really stuck in my mind—hell, it changed my life!—was one day in the spring of '55, you and a couple of those Jewish broads you

thing around with were staying after school yakking away about whether or not there was a Gaud. That's what you called him—Gaud. You had a real fakey accent then—from seeing too many Laurence Olivier movies, I'll bet. I was sitting at the back of the room on detention. Sullen and invisible, as was my way. Does any of it come back?"

"Not that particular day. I talked a lot about Gaud that year. I had just discovered the Enlightenment, as it's called. I remember the two girls though. Barbara—and who was the other one?"

"Ruth."

"What a fearful memory you have."

"The better to eat you with, my darling. Anyhow, to get back—the two broads would bring up those hoary arguments about the universe is like a watch, and you can't have a watch without a watchmaker. Or the First Cause, that no other Cause Causes. Till that day I'd never even heard the watchmaker bit, and when they came out with it, I thought, 'Now, *that'll* stop old Donovan's Brain.' But not a bit of it—you just tore their sappy syllogisms—" Another foul mispronunciation. "—to pieces. They never got the message, they just kept coming on with the same old crap—but I did. You toppled me right out of that old-time religion."

"I'm sorry, Mordecai. Truly I am. One never realised how many other lives we can poison with what we think is our own error. I don't know how—"

"Sorry? Baby, I was *thanking* you. It may seem a strange way to do it, having you hijacked to this hole-in-the-ground, but it's a better life you'll lead here than you led in Springfield. Haast showed the journal you were keeping there. You're well out of it. But I'll admit it wasn't *only* altruism made me ask Haast to bring you here. It was my big chance to meet a first-class, bona-fide, published poet. You really went the whole way, didn't you, Sacchetti?" Impossible to sort out the feelings he mingled in that one question: admiration, contempt, envy and—which affected nearly everything Mordecai said to me—a sort of haughty mirth.

"I take it that you've read *The Hills of Switzerland*?" I returned. Trust a writer's vanity to take the first opportunity to sneak that in!

Mordecai shrugged his negligible shoulders. "Yeah. I read it."

"Then you know that I've outgrown the callow materialism of those days. God exists quite independently of Aquinas. Faith is more than a mastery of syllogisms."

"Fuck faith, and fuck your epigrams. You're not my Big Brother any more. I'm two years *your* senior, friend. And as for your latter-day piety, I had you brought here *despite* that, and despite some stinking awful poetry too."

What could I do but flinch?

Mordecai smiled, his anger bevanished as soon as expressed. "There were some stinking good poems too. George liked the book as a whole better than I did,

and George knows more about such things. For one thing, he's been here longer. What'd you think of him?"

"Of George? He was . . . very intense. I'm afraid I wasn't quite prepared for so much all at once. I'm afraid I'm still not. You're pretty fast and loose down here, especially after the total vacuum of Springfield."

"Like hell. What's your I.Q. anyhow?"

"Does it make sense, at my age, to talk about I.Q.s? In '57 I scored 160 on one test, but I don't know how far along the standard curve that would take me. But *now* what difference does a printed test make? It's a question entirely of what you *do* with your intelligence."

"I know—ain't it a bitch?" Lightly as he tossed this off, I felt that I had for the first time in our talk touched a theme that Mordecai regarded with any sort of seriousness.

"What *are* you doing, Mordecai? Here, in this place. And what is this place? What are Haast and Busk trying to get out of you people?"

"This is hell, Sacchetti, didn't you know? Or its antechamber. They're trying to buy our souls up so they can use our bodies for sausages."

"They told you that I shouldn't know anything about it—is that it?"

Mordecai faced away from me and walked across the room to the bookshelf. "We're geese, and into our gullets Haast and Busk are stuffing western culture. Science, art, philosophy, whatever can be crammed in. And still—

I am not full, I am not full.

My stomach has been flushed and flushed,

and yet I cannot hold

my food, I cannot touch Oh!

I am not full."

It was my own poem that Mordecai had quoted. My reaction wavered between the flattery I felt at his having singled out just that passage to memorise (for it is one I am most proud of) and a pity for the poignance of what he had said, not less poignant for my having said it first. I made no reply, asked no more questions.

Mordecai dropped leadenly onto the couch. "This room is a fucking mess, Sacchetti. All our rooms were like this at the start, but you don't have to put up with it. Tell Haast you want something classier. Say the curtains interfere with your brain waves. We've got *carte blanche* here for things like interior decoration—as you'll see. So take advantage of it."

"Compared to Springfield this seems quite elegant. For that matter, compared to anywhere I've ever lived, barring a single day at the Ritz."

"Yeah, poets don't make so much money, do they? I'll bet I was a lot better off than you—before I got drafted. The motherfuckers! That was a big mistake, getting drafted."

"You arrived at Camp Archimedes the same way George did, via the brig?"

"Yeah. Assaulting an officer. The son of a bitch kept asking for it. They all keep asking for it, but they never

get it. Well, that son of a bitch did. I knocked the mother's teeth out, two of them. Bad scene. The brig was a worse scene—they're really down on you after a thing like that. So I volunteered. That was six, seven months back. Sometimes I think maybe it wasn't such a big mistake. I'll say this for the stuff they gave us—it beats acid. With acid you *think* you know everything; with this, you goddam well do. But it isn't so often I can get as high as all that. Most of the time it's a pain. Like H.H. says—'Genius is an infinite capacity for pain.'

I laughed, as much from sheer dizziness at the speed and shifts of his rhetoric as in appreciation of the mot.

"But it was a mistake. I was better off dumb."

"Dumb? It doesn't sound like that was ever exactly your condition."

"I sure as hell never had no hundred-and-sixty I.Q. Not this mother."

"Oh, but those tests are gimmicked for middle-class WASPs like me. Or I suppose I should say WASCs. Measuring intelligence isn't as simple as taking a blood sample."

"Thanks for saying so, but the truth is I was a dumb son of a bitch. And even more ignorant than dumb. Everything that I know now, the way I'm talking with you—it's all on account of the Pa—on account of the stuff they gave me."

"All of it? No."

"Fucking *all* of it!" He laughed, a calmer laugh than at first. "It's gratifying to talk with you, Sacchetti. You flinch at my every obscenity."

"Do I! It's that middle-class upbringing, I suppose. I'm well used to the Anglo-Saxon words in print, but somehow the spoken word. . . . It's a reflex."

"That picture book you're looking at—have you read the text that goes with it?"

I had been browsing through the second volume of Wilenski's *Flemish Painters*, which contains the plates. Volume One is all text. "I started to, but I got bogged down. I haven't settled down enough to be able to concentrate on anything."

Mordecai's reaction to this seemed unduly grave. He said nothing in response, however, but after a pause continued his first train of thought. "There's a passage in there that's terrific. Can I read it to you?" He'd already taken Volume One down from the shelf. "It's about Hugo van der Goes. You know about him?"

"Only that he was one of the earliest Flemish painters. I don't think I've seen anything of his though."

"You couldn't have. None of it survived. Nothing that he signed, at any rate. The story goes that around 1470 he went mad, raved about being damned and the devil was going to get him and all that. He was already living in this monastery near Brussels at the time, and the brothers would play music to try and calm him, like David with Saul. One of the boys there wrote an account of his madness—it's all worth reading—but the part of it I really liked. . . . Here, let me read it to you:

" . . . Brother Hugo from inflaming of his imaginative powers was disposed to daydreaming fantasies and hallucinations and suffered in consequence an illness of the brain. For there is, I am told, a small delicate organ, near the brain, which is controlled by the creative and imaginative powers; if our imagination is too vivid or our fantasy too abundant, this little organ is affected, and if it is strained to the breaking point madness or frenzy results. If we are to avoid falling into this irremediable . . ."

Mordecai faltered pronouncing this word.

" . . . danger, we must limit our fantasy, our imaginations and our suspicions and exclude all other vain and useless thoughts which may excite our brains. We are all but men; and the disaster that fell upon our Brother as a result of his fantasies and hallucinations, could it not also fall on us?"

"Isn't that great? I can just imagine the old bastard, the satisfaction he got writing it down: 'I told you so, Hugo! Didn't I always say that all that painting was *dangerous*?' Why do you suppose he did go mad, though?"

"Anyone can go mad; it's not the prerogative of painters. Or poets."

"Yeah, I suppose when you come right down to it, everybody's crazy. My folks were sure enough crazy. Mammy—that's what we called her, so help me!—Mammy was crazy with the Holy Ghost, and the old man was crazy without it. Both my brothers were junkies, so that makes them crazy. Crazy and crazy and crazy and crazy."

"Is something wrong?" I asked, rising from bed and going toward Mordecai, who had become increasingly agitated during this speech, until at last, trembling, eyes pressed tightly closed, one hand upon his heart, his speech degenerated into a mere static of choked breath. The heavy book dropped from his left hand to the floor, and at its impact he opened his eyes. "I'll be . . . all right if I . . . sit down a minute. A little dizzy."

I helped him back to the sofa and, lacking a better remedy, brought him a glass of water, which he drank gratefully. His hands, holding the glass, still trembled.

"And yet, you know . . ." he resumed quietly, running his spatulate fingers up and down the flutings of the glass, ". . . there was something about van der Goes. At least I like to think there was. Something special about any artist, of course. A sort of magic—in the literal sense. Unriddling the signatures of nature, and breathing the same secrets back. It's like that, isn't it?"

"I don't know. I don't think it's that for me, but there are many artists who would like it to be like that. But the problem with magic is *that* it doesn't work."

"Like hell," Mordecai said quietly.

"Can you scoff at God and believe in demons?"

"What are demons? I believe in elemental powers: sylphs, salamanders, undines, gnomes—parables of primal matter. You smile and sneer and cuddle up in the comfortable Jesuitical universe of College Physics.

Matter has no mysteries left for you, oh no! No more than the spirit does. All tidy and known, like a mother's cooking. Well, ostriches feel at home in the universe too, though they can't see it."

"Believe me, Mordecai, I'd be happy in a world of sylphs and salamanders; any poet would. What do you think we've all been bellyaching about these past two hundred years? We've been evicted."

"But you still sneer at the words. For you they're nothing but a Russian ballet, a tinkle of bells. But I have *seen* the salamanders, dwelling in the midst of flames."

"Mordecai! The very notion that flame is an element is nonsense. Half a semester of chemistry would disabuse you of that idea. High school chemistry, at that."

"Flame is the element of change," he said, in an exalted, orgulous tone, "of the transubstantial. It's the bridge between the matter and spirit. What else is it lives in the heart of your giant cyclotrons? Or at the heart of the sun? You believe in angels, don't you—the mediaries between this and the farthest sphere. Well, I have *spoken* with them."

"The farthest sphere—that which God inhabits?"

"Gaud, Gaud! I prefer familiar spirits — my sylphs and salamanders — who will answer when spoken to. Two in the hand are worth one in the bush. But there's no use our arguing. Not yet. Wait till you've seen my laboratory. Unless we adjust our vocabularies for mutual comprehension, we'll go on oscillating between Sic and Non till fucking doomsday."

"I'm sorry—I'm not usually so inflexible. I imagine it's a matter less of reasoned dissent than of mental self-preservation. It would be easy to let myself be swept up in your rhetoric. That's meant to be a compliment, you know."

"It bugs you, doesn't it, that I'm smarter than you are?"

"Didn't it bug you, Mordecai, when the tables were turned, when you knew me first? Besides . . ." Smiling, trying to put a good face on the matter. ". . . I'm not sure you are."

"Oh, I am, I am. Believe me. Or test me, if you'd like. Any time. Just name your weapon, baby. Pick a science, any science. Maybe a formal debate would suit you better? Do you know the dates of the reigns of the kings of England, France, Spain, Sweden, Prussia? A scramble up the slopes of *Finnegan's Wake* perhaps? Haikus?"

"Stop! I believe you. But God damn it, there's still *one* field that I'd win in yet, superman."

Mordecai tossed his head back defiantly. "What's that?"

"Orthoepy."

"Okay, I'll bite. What's orthoepy?"

"The study of correct pronunciation."

Lucifer, falling from heaven, was not so dismayed. "Yeah, yeah, that's so. But damn it, I don't have the *time* to look up and see how every dinky word is pro-



nounced. But when I say a thing the wrong way, will you correct me?"

"I suppose a poet should be good for that, if nothing else."

"Oh, there's a lot that we've got lined up for you. You'll have to talk with George again. Not today, he's in sickbay today. He has some great ideas for putting on *Doctor Faustus* here, but we've been waiting till you were around. And there's one other thing too. . . ." Uncharacteristically, Mordecai seemed unsure of his ground.

"And that?"

"I've written something. A story. I thought you could read it and tell me what you think. Haast has promised I can send it out to a magazine, after N.S.A. has checked it out. But I'm not sure it's good enough. I mean, in an absolute sense. Everybody *here* likes it, but we've become an awfully tight little group. Inbred. You've still got your own head on your shoulders though."

"I'd be glad to read it, and I assure you I'll be as nasty a critic as I know how. What's it about?"

"About? Jesus Christ, that's a hell of a question to get from a poet. It's about van der Goes, as a matter of fact."

"And what is N.S.A.?"

"National Security Agency. The code boys. They check over everything we say—it all goes down on tape, you know—to make sure we're not being . . . hermetic."

"Are you being hermetic?"

Mordecai, the alchemist, winked. "Abra-cadabra," he said meaningfully. Then, quick as a sylph, he was gone.

Later:

In summary? As easily summarise a tiltawhirl.

Guilt certainly, for having been the agent of Mordecai's falling-away. It never ceases to amaze how far-reaching an effect our slightest actions may have. The monk in his cloister entertains an error, imagining the danger to be only his, but a century hence his heresy may have convulsed nations. Perhaps the conservatives are right, perhaps few thought is dangerous.

But how the Old Adam, Louie II, protests at that! Do what I will, I can never quite silence him. It takes all the force of volition at times to prevent *his* voice from speaking aloud. He is always waiting, crouched in my heart, to usurp the sovereignty of reason.

But guilt is only a small part of what I feel. Wonder and awe, much more. Like some watcher of the skies/ When a new planet swims into his ken. The morning star. Lucifer, prince of darkness. Tempter.

June 8

ZU VIEL, zu viel! I have been all the day talking, talking. My mind is a 33 record being played at 78. I've met all but three or four of the score that are here; among themselves the prisoners are even more daunting than taken singly. The resonances of those many meetings still swell up within me, like reminiscences of music

after the opera.

It began early, when a guard brought me an ink-damp invitation to visit George W. in the sickbay, than which no hospital, not Wren's Chelsea, could be more magnificent. His bed might have been by Tiepolo. And flowers by the Douanier Rousseau. We talked more of Rilke, whom George admires less for his craft than for his heretic notions. He's done his own translations. Eccentric prosody. I reserved judgement. Discussed his ideas for staging *Faustus*, which led to his project for a model theatre. It is to be *built* for him down here! (There is no longer any question but that Camp A. is deep underground.)

I can't remember the names of all the others, or all that was said. Only one, Murray Something-or-other, an overfine young fellow with a porcelain manner, did I take a decided dislike to, which he reciprocated (though I may be flattering myself: more likely he didn't even know I was there). He led a fiery discussion of alchemical jargon. Which I would paraphrase so: "Two cocks coupling in darkness; from their brood are hatched dragontailed chicks. In seven times seven days these are burned, their ashes triturated in vessels of sacred lead." To which I say: Pish! But how earnestly they regarded his pish! As I later confirmed, this preoccupation has been largely Mordecai's doing.

Whom I liked best was Barry Meade. I'm always happy to meet people fatter than myself. Meade is hung up on movies, and at two o'clock, when George had to be sedated for his nap (poor George is in bad shape, but everyone I asked seems to have a different notion of the cause), he took me to the little projection room three levels down and showed me a montage he has made of McNamara's policy speeches and screaming women, clipped out of old horror movies. Hilarity mounting to hysteria. Barry, very cool, kept apologising for imperceptible nuances of error.

4.30. George was awake again, but he ignored me for a mathbook. I begin to have the feeling that, like a child visiting childless relatives for a holiday, the responsibility for my entertainment is being parcelled out among them. It happened in the afternoon, at least, that I came under the care of one who was introduced to me simply as "the Bishop". I suspect it is his dandified clothes earned him the nickname. He expositied the social order that has evolved here. In brief, it stands thus: that Mordecai, by main strength and charisma, is the unchallenged czar of a benevolent anarchy. The Bishop comes to Camp A. not out of the brig but from an Army mental hospital, where he had been two years suffering from total amnesia. He made a fascinating, droll and scary recital of his multiple suicide attempts. He once drank a whole quart of lead paint. Yech.

Later on, he walloped me at chess.

Still later on, Murray Something-or-other played electronic music. (His own? Somebody said yes, someone else said no.) In my manic condition even that sounded good.

And more. And more. Ossa on Pelion.

Too much, I'll say it again. And what is to come of it all? Why was this splendid monster given life? Tune in tomorrow.

June 9

Ah, but it's one of *those* tomorrows—the sort when I feel that entropy is winning. I feel, on this tomorrow, as hollow as a papier-maché mask, all grin and wink and wrinkle. The truth perhaps—the *true* truth—is not so much that the mask is hollow as that I don't care to look behind it at the nystagmic flicker of image image image that the nethermind is broadcasting to the faulty receptor of the overmind. I am bad and silly and defeated today, I am sick.

There were visitors—Mordecai, Meade, a note from George W.—but I maintain myself in solitude, claiming to be not myself. Who then?

I have been too long out of the lifegiving sun. That's my problem.

And I cannot think two thoughts in sequence. *Ahimé*.

June 10

Much better, thank you. Yes, it feels quite good. Now once again I look on the sunny side of defeat.

Facts:

Another call on H.H. Having become accustomed to the plastery whiteness of prisoners and guards alike, the slumped softness of his face (like Tastee White Bread, toasted) seemed more than ever an offence against the natural order. If that is health, then let diseases waste me!

We talked of this that and another. He commended my journal's factoricity (sic) in general, but took exception to yesterday's entry, which was too subjective. If I should ever start feeling subjective again I need only say the word and a guard will bring a tranquilizer. We can't afford to let the precious days slip away from us, can we?

And thus, and so, the greased cams and tappets of his banality bobbed and lolloped up and down, to and fro, upon predictable, rotary paths—and then he asked me: "So you've met Siegfried, have you?"

"Siegfried?" I asked, thinking this might be his nickname for Mordecai.

He winked. "You know . . . Dr. Busk?"

"Siegfried?" I asked once more, more puzzled than before. "How so?"

"You know—like the Siegfried Line. Impregnable. It's because I was sure that she's a cold fish that I had her recruited for this project. Ordinarily it wouldn't do to have women in a situation like this, having to work with a bunch of horny G.I.s—and more than one of them coloured. But with Siegfried it doesn't make any difference."

"It sounds as if you speak from experience," I suggested.

"WACs," Haast said, shaking his head. "Some of

them can't get enough of it; others. . . ." He leaned forward confidentially. "Don't put this into your journal, Sacchetti, but the fact of the matter is that she still has her cherry."

"No!" I protested.

"Don't get me wrong—Siegfried is an A-OK worker. She knows her business like nobody else, and she'd never let her feelings get in the way of business. Psychologists, as a rule, are apt to be sentimental, you know—they like to *help* people. Not Busk. If she has any failing, it's a lack of imagination. Sometimes she's a little limited in her way of thinking. Too . . . you know . . . conventional. Don't misunderstand me—I respect science as much as the next man—"

I nodded yes, yes, not misunderstanding him.

"Without science we wouldn't have radiation, or computers, or Krebiozen, or men on the moon. But science is only *one* way of looking at things. Of course I don't let Siegfried say anything directly to the boys . . ."—as Haast calls his guinea pigs—" . . . but I think they can sense her hostility anyhow. Fortunately they haven't let that dampen their enthusiasm. The important thing, as even Busk realises, is to let them steer their own course. They've got to break away from the old patterns of thought, blaze trails, *explore*."

"But what is it exactly," I asked, "that Busk doesn't approve of?"

Again he leaned forward confidentially, puckering the deltas of tanned wrinkles about his eyes. "There's no reason I shouldn't be the one to tell you, Sacchetti. You'll find out soon enough from one of the boys. Mordecai is going to perform the Magnum Opus!"

"Is he?" I said, savouring Haast's credulity.

He flinched, as sensitive to the first hint of scepticism as a fern to sunlight. "Yes, he is! I know what you're thinking, Sacchetti. You're thinking just what old Siegfried thinks—that Mordecai has me hoodwinked. That I'm being conned, as the saying goes."

"It suggests itself as a possibility," I admitted. Then, salving the wound: "You wouldn't want me to be insincere, would you?"

"No no,—anything but that." He settled back in his chair with a sigh, letting the intently-gathered wrinkles diffuse over his face, ripples on the shallow pool of his fatuity.

"I'm not surprised," he went on, "by your attitude. Having read your account of your talk with Mordecai, I should have realised. . . . Most people have the same reaction at first, you know. They think that alchemy is some kind of black magic. They don't realise it's a *science*, just like any other. The first science, as a matter of fact, and the only science, even now, that isn't afraid to look at *all* the facts. Are you a materialist, Sacchetti?"

"Nooo . . . I wouldn't say that."

"But that's what science has become nowadays! Pure materialism and nothing else. Try and tell somebody about super-natural facts—that is to say, facts that are *superior* to the facts of *natural* science—and they close

their eyes and stop their ears. They have no idea of the amount of Study, the hundreds of Volumes, the centuries of Research. . . ."

I think he had been about to round out this last phrase with "& Development" but caught himself in time.

"I've noticed," he went on, though veering, "that you mention Thomas Aquinas more than once in your journals. Well, did you ever stop to think that *he* was an alchemist? He was, and his teacher, Albertus Magnus, was an even *greater* alchemist! For centuries the very best minds of Europe studied hermetic science, but nowadays someone like you or Busk comes along and without bothering to learn a thing about it, you discount all their work as nothing more than just a pack of superstitions. Who's being superstitious though, eh? Who's making judgements without evidence? Eh? Eh? Have you ever read a book about alchemy—one single book?"

I had to admit that I had not read one single book about alchemy.

Haast triumphed: "And yet you think you're qualified to sit in judgement on *centuries* of scholars and deevines?" There was an echo in his pronunciation of this word, and indeed in the whole tone and content of his discourse, of Mordecai.

"Take a piece of advice from me, Sacchetti."

"You can call me Louie, sir."

"Yes, that's what I mean to say . . . Louie. Keep an open mind, and be receptive to Fresh Approaches. All the great advances in Human History, from Galileo—" Another splendid, horrendous Mordecaism. "—down through Edison in our own time, have been made by people who dared to be different."

I promised to be open and receptive, but H.H., warmed to his subject, would not abate. He demolished whole battalions of straw men and demonstrated, with a dreamlike logic, that the whole disheartening story of the last three years in Malaysia has been due to the un-receptivity of certain key figures in Washington, unnamed, to Fresh Approaches.

Whenever I put questions of any particularity to him, however, he grew reticent and canny. I was not ready, he intimated, to be made privy to the mysteries. From his Army days Haast has preserved an unswervable faith in the efficacy of secrets: knowledge is devalued whenever it becomes too generally known.

I can no longer have any doubt of the fidelity of Berrigan's portrait of "General Uhrlick" in *Mars in Conjunction* (which is not, I've noticed, available at our own library), and I can understand why Haast, though he cried slander to the four winds and did all he could to ruin Berrigan, never dared take him to court. The credulous old fool *did* conduct the whole damned miserable year-long campaign on Auau'i by astrology!

Let us hope that history will not repeat itself verbatim, that Mordecai is not, too cunningly, performing Berrigan's fatal role.

Later:

Be it noted: I am reading one single book on alchemy. Haast sent it by messenger within minutes of our leaving. Rene Alleau's *Aspects de l'alchemie traditionnelle*, with an accompanying typescript translation in a TOP SECRET folder.

It reads, pleasantly enough, like a crank letter, the kind that begins:

"Dear Editor,

"You probably won't dare to print this letter but. . . ."

June 11

THE FAUSTUS rehearsal: a disappointment, a delight and then the horrid, swift decline to reality.

I don't know what I had been expecting from George W. as a director. Something on the order of the fabled (and possibly non-existent) Genet "underground" productions of the late '60's, I suppose. But his design for *Faustus* was a mild pastiche of theatre-in-the-round and the labourious luteness of Wieland Wagner's stagings for Bayreuth. Of course when the audience consists in only those actors not required onstage—and myself with the prompt book (quite unnecessary as it turned out; even for this first run-through they knew *all* their lines)—a proscenium would be cumbersome and out-of-keeping. But to suppose that a peasoup fog is an enhancement to tragedy is mere muddleheadedness, and reactionary to boot. Hell is murky, true—but *Scotland* need not seem so.

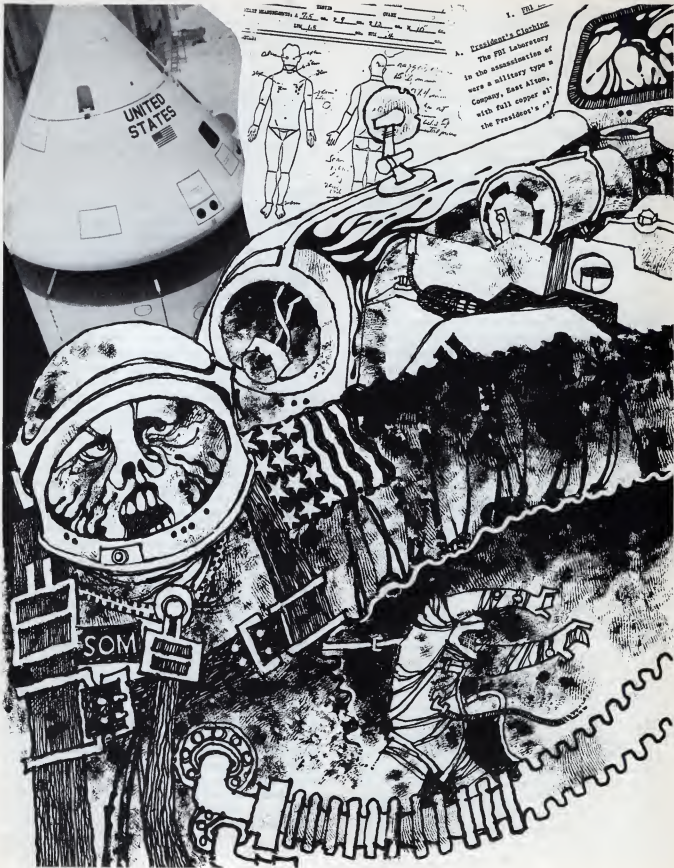
So, it appears that (I'm happy to report) our young geniuses can err. This is a judgement, however, based on 20 years of rabid, indiscriminate and usually disappointed theatre-going. The wonder of G's *Faustus* is that not he nor any of the prisoners here has ever seen a play on the stage. Movies, yes, and more than once it was by misappropriating camera techniques that G. came a-cropper.

But this is all giggling and higgling. As soon as they began to *act*, all the fog rolled back and only admiration was possible. To borrow a phrase from Mordecai: the actors deserve the very highest allocades!

I missed my chance, way back when, to see Burton in the role, but I can't imagine that he would have been much better than George Wagner. Burton's *voice* certainly would have been nobler in that last soliloquy, but could he have convinced one so well that here, in veritas, breathing and whole, was the mediaeval schoolman, God-haunted and blaspheming God, fatally and heroically in love with Knowledge? Could Burton have made Knowledge seem so horrible and veiled a thing, a succubus, as when, in the opening scene Faustus sighs: "*Sweet Analytics, 'tis thou has ravished me!*"? When he said that I could feel my arteries dilate to receive, ravished too, her poisons.

Mordecai played Mephistopheles—so much less impressive in Marlowe's than in Goethe's version, though

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THE DEATH MODULE

j. g. ballard

THE IMPACT ZONE. The tragic failure of these isolation tests, reluctantly devised by Trabert before his resignation, were to have bizarre consequences upon the future of the Institute and the already uneasy relationships between the members of the research staff. Catherine Austin stood in the doorway of Trabert's office, watching the reflection of the television screen flicker across the slides of exposed spinal levels. The magnified images of the newsreels from Cape Kennedy dappled the enamel walls and ceiling, transforming the darkened room into a huge cubicular screen. She stared at the transcriptions clipped to the memo-board on Trabert's desk, listening to the barely audible murmur of the sound-track. The announcer's voice became a commentary on the elusive sexuality of this strange man, on the false deaths of the three astronauts in the Apollo capsule, and on the eroded landscapes of Max Ernst which the volunteers in the isolation tests had described so poignantly in their last transmissions.

The Polite Wassermann. Margaret Trabert lay on the bloodshot candlewick of the bedspread, unsure whether to dress now that Trabert had taken the torn flying jacket from his wardrobe. All day he had been listening to the news bulletins on the pirate stations, his eyes hidden behind the dark glasses as if deliberately concealing himself from the white walls of the apartment and its unsettled dimensions. He stood by the window with his back to her, playing with the photographs of the isolation volunteers. He looked down at her naked body, with its unique geometry of touch and feeling, as exposed now as the amorphous faces of the test subjects, codes of insoluble nightmares. The sense of her body's failure, like the incinerated musculatures of the three astronauts whose after-deaths were now being transmitted from Cape Kennedy, had dominated

their last week together. He pointed to the pallid face of a young man whose photograph he had pinned above the bed like the icon of some algebraic magus. "Kline, Coma, Xero—there was a fourth pilot on board the capsule. You've caught him in your womb."

The University of Death. These erotic films, over which presided the mutilated figure of Ralph Nader, were screened above Dr. Nathan's head as he moved along the lines of smashed cars. Illuminated by the arc-lights, the rushes of the test collisions played on to the walls of the Neurology wing defined the sexual ambiguities of the abandoned motorcade. As he stepped over the metering coils this apotheosis of Ralph Nader, successor of Kant and Hume, quantified the disasters of time and space he had seen in the failure of the isolation tests, and in the fire-deaths of Cape Kennedy.

Indicators of Sexual Arousal. During the interval when the reels changed, Dr. Nathan saw Trabert peering at the photographs pinned to the windshields of the crashed cars. From the balcony of his empty office Catherine Austin watched him with barely focused eyes. Her leg stance, significant indicator of sexual arousal, confirmed all Dr. Nathan had anticipated of Trabert's involvement with the events of Dealey Plaza, with the suicide of Marilyn Monroe and the alternate deaths of Oswald and Malcolm X. Behind him there was a shout from the camera crew. An enormous photograph of Jacqueline Kennedy had appeared in the empty rectangle of the screen. A bearded young man with an advanced neuro-muscular tremor in his lower legs stood in the brilliant pearl light, his laminated suit bathed in the magnified image of Mrs. Kennedy's mouth. As he walked towards Trabert across the broken bodies of the plastic dummies the screen jerked into a nexus of impacting cars, a soundless

The Transition Area. During this period, as Trabert prepared for his departure, the elements of apocalyptic landscapes waited on the horizons of his mind, wrecked helicopters burning among broken gantries. With deliberate caution, he waited in the empty apartment near the airport overpass, disengaging himself from the images of his wife, Catherine Austin and the patients at the Institute. Wearing his old flying jacket, he listened to the unending commentaries from Cape Kennedy—already he realised that the transmissions were coming from sources other than the television and radio stations. The deaths of the three astronauts in the Apollo capsule were a failure of the code that contained the operating formulae for their passage through consciousness. Many factors confirmed this faulty eucharist of time and space—the dislocated perspectives of the apartment, his isolation from his own and his wife's body (he moved restlessly from one room to the next, as if unable to contain the volumes of his limbs and thorax), the serial deaths of Ralph Nader on the advertisement hoardings that lined the airport approaches. Later, when he saw the young man in the laminated suit watching him from the abandoned amusement park, Trabert knew that the time had come for his rescue attempt, the resurrection of the dead space-men.

Algebra of the Sky. At dawn Trabert found himself driving along an entry highway into the deserted city: terrain of shacks and filling stations, overhead wires like some forgotten algebra of the sky. When the helicopters appeared he left the car and set off on foot. Sirens wailing, white-doored squad cars screamed past them, neuronc icons on the spinal highway. Fifty yards ahead, the young man in the astronaut's suit plodded along the asphalt verge. Pursued by helicopters and strange police, they took refuge in an empty stadium. Sitting in the deserted stand, Trabert watched the young man pace at random around the pitch, replicating some meaningless labyrinth as if trying to focus his own identity. Outside, Kline walked in the sculpture garden of the air terminal. His aloof, cerebral face warned Trabert that his rendezvous with Coma and Xero would soon take place.

A Watching Trinity. Personae of the unconscious: Xero: Run hot with a million programmes, this terrifying figure seemed to Trabert like some vast neural switchboard. During their time together, as he sat in the rear seat of the white Pontiac, he was never to see Xero's face, but fragments of his amplified voice reverberated among the deserted stands of the stadium, echoing through the departure bays of the air terminal.

Coma: This beautiful but mute young woman, madonna of the time-ways, surveyed Trabert with maternal eyes, epiphanies of calm and death.

Kline: “Why must we await, and fear, a disaster in

The Karen Novotny Experience. As she powdered herself after her bath, Karen Novotny watched Trabert kneeling on the floor of the lounge, surrounded by the litter of photographs like some eccentric Zen cameraman. Since their meeting at the emergency conference on Space Medicine he had done nothing but shuffle the photographs of wrecked capsules and automobiles, searching for one face among the mutilated victims. Almost without thinking she had picked him up in the basement cinema after the secret Apollo film, impelled by his exhausted eyes and the torn flying jacket with its Viet Nam flashes. Was he a doctor, or a patient? Neither category seemed valid, nor for that matter mutually exclusive. Their period in the apartment together had been one of almost narcotic domesticity. In the planes of her body, in the contours of her breasts and thighs, he seemed to mimetise all his dreams and obsessions, with Ralph Nader, Oswald and Minkowski space-time. In many ways, she reflected as she sprayed the Guerlain helicoptre at her armpits, he seemed totally unaware of her own identity.

Pentax Zoom. In these equations, the gestures and postures of the young woman, Trabert explored the faulty dimensions of the space capsule, the lost geometry and volumetric time of the dead astronauts.

(1) Lateral section through the left axillary fossa of Karen Novotny, the elbow raised in a gesture of pique: the transliterated pudenda of Ralph Nader.

(2) A series of paintings of imaginary sexual organs. As he walked around the exhibition, conscious of Karen's hand gripping his wrist, Trabert searched for some valid point of junction. These obscene images, the headless creatures of a nightmare, grimaced at him like the exposed corpses in the Apollo capsule, the victims of a thousand auto-crashes.

(3) “The Stolen Mirror” (Max Ernst). In the eroded causeways and porous rocktowers of this spinal landscape Trabert saw the blistered epithelium of the astronauts, the time-invaded skin of Karen Novotny.

A Cosmogonic Venus. Dr. Nathan followed the young man in the laminated suit across the forecourt of the deserted air terminal. The metallised light shivered across the white steps like the defective image in some huge kinetic artefact. Unhurried, Dr. Nathan stopped by the sculpture fountain to light a cigarette. He had been following the young man all morning, intrigued by this dialogue of motion and perspective played out in complete silence against the background of the air terminal. The young man looked back at Dr. Nathan, as if waiting for him. A half-formed smile crossed his bruised mouth, revealing the scars of some automobile accident barely hidden by the pale beard. Dr. Nathan gazed round at the forecourt, suddenly thinking of Max Planck and the dying Fermi. Someone had drained the ornamental pool.

Like an immense uterus, its neck pointing towards the departure bays, it lay drying in the sunlight. The young man climbed the rim and walked down the sloping bowl to the centre. Dr. Nathan laughed briefly into his gold-tipped cigarette. "What a woman!" Perhaps Trabert would become her lover, tend her as she gave birth to the sky?

The Abandoned Motorcade. Walking through the deserted streets with Kline and Coma, Trabert found the motorcade abandoned in the sunlight. They moved along the rows of smashed cars, seating themselves at random beside the mannequins. Images of the Zapruder film hung on the fractured windshields, fusing with his dreams of Oswald and Nader. Somewhere the moving figure of a young man formed a plane of intersection. Later, by the drained swimming pool, he played with the life-sized plaster replicas of his wife and Karen Novotny. All week, to please Coma, he had studied the Zapruder frames, imitating the hair-style of the President's widow. As the helicopter flew overhead its down-draught whirled at the matted wigs, driving into a cloud the photographs of Marina Oswald, Madame Chiang and Mrs. Kennedy which Trabert had laid out like some strange hand of patience on the floor of the pool.

Operating Formulae. Gesturing Catherine Austin into the chair beside his desk, Dr. Nathan studied the elegant and mysterious advertisements which had appeared that afternoon in the copies of *Vogue* and *Paris-Match*. In sequence they advertised: (1) The left orbit and zygomatic arch of Marina Oswald. (2) The angle between two walls. (3) A "neural interval"—a balcony unit on the 27th floor of the Hilton Hotel, London. (4) A pause in an unreported conversation outside an exhibition of photographs of automobile accidents. (5) The time, 11.47 a.m., June 23, 1969. (6) A gesture—a supine forearm extended across a candlewick bedspread. (7) A moment of recognition—a young woman's buccal pout and dilated eyes.

"What exactly is he trying to sell?" Ignoring Catherine Austin, Dr. Nathan walked over to the photographs of the isolation volunteers on the enamel wall beside the window. The question revealed either an astonishing ignorance or a complicity in that conspiracy of the unconscious he had only now begun to unravel. He turned to face the young woman, irritated as always by her strong, quizzical gaze, an overlay of her own potent sexuality. "*You, Dr. Austin. These advertisements constitute an explicit portrait of yourself, a contour map of your own body, an obscene newsreel of yourself during intercourse.*" He rapped the magazines with his gold cigarette case. "These images are fragments in a terminal moraine left behind by your passage through consciousness."

"Planes Intersect." Dr. Nathan pointed to the photo-

graph of a young man with a pale beard, the cast in his left eye displacing one side of his face. "Planes intersect: on one level, the tragedies of Cape Kennedy and Viet Nam serialised on billboards, random deaths mimetised in the experimental auto-disasters of Nader and his co-workers. Their precise role in the unconscious merits closer scrutiny, by the way, they may in fact play very different parts from the ones we assign them. On another level, the immediate personal environment, the volumes of space enclosed by your opposed hands, the geometry of your postures, the time-values contained in this office, the angles between these walls. On a third level, the inner world of the psyche. Where these planes intersect, images are born, some kind of valid reality begins to clarify itself."

The Soft Quasars.

Pre-uterine Claims—Kline.

"Young Virgin auto-sodomised by her own chastity"—Coma.

Time-zones: Ralph Nader, Claude Eatherly, Abraham Zapruder, replicators of the dream—Xero.

The Departure Platform. Closer to this presiding trinity, Trabert waited among the departure bays in the deserted terminal. From the observation deck above the drained sculpture fountain, Coma watched him with her rune-filled eyes. Her broad cheek-bones, reminiscent now of the President's widow, seemed to contain an immense glacial silence. On the roof terrace, Kline walked among the mannequins. The plaster models of Marina Oswald, Ralph Nader and the young man in the laminated suit stood by the railing. Xero, meanwhile, moved with galvanic energy across the runways, assembling an immense motorcade of wrecked cars. Behind the advance car, the Presidential limousine waited in the sunlight. The silence before a million auto-deaths hung in the morning air.

A Mere Modulus. As Margaret Trabert hesitated among the passengers in the crowded departure building, Dr. Nathan came up behind her. His small face was dwarfed by the vast mural of a satellite capsule still drying on the wall above the escalators, the artist's trestles like a huge gantry that would carry the entire building into orbit. "Mrs. Trabert—don't you understand? This young woman with him is a mere modulus. His real target is yourself—" Irritated as always by Nathan, she brushed past the police detective who tried to block her way and ran out into the forecourt. Among the thousands of cars in the parking lot she could see the white Pontiac. All week the young woman in the white car had been following her husband like some animal in rut.

The Target Vehicle. Dr. Nathan pointed through the windshield with his cigarette. Two hundred yards ahead Margaret Trabert's car had turned out of a motel driveway. It set off along the deserted street, a white

integer beneath the unravelling ciphers of the over-head wires. "This motorcade," Dr. Nathan explained as they set off, "we may interpret as a huge environmental tableau, a mobile psychodrama which recapitulates the Apollo disaster in terms of both Dealey Plaza and the experimental car crashes examined so obsessively by Nader. In some way, presumably by a cathartic collision, Trabert will try to reintegrate space and so liberate the three men in the capsule. For him they still wait there on their contour couches." As Catherine Austin touched his elbow he realised that he had lost sight of the white car.

The Command Module. Watched by Kline and Coma, Trabert moved behind the steering wheel of the open limousine. Behind the empty jump seats the plastic mannequins of the President and his wife sat in the rear of the car. As the motorcade moved off, Trabert peered through the frosted windshield. An immense target disc had been painted at the conjunction of the runways. From the departure area a white car turned on to the next runway and accelerated on a collision course toward the motorcade.

Zapruder Frame 235. Trabert waited until the audience had left the basement cinema. Holding in his

hand the commercial replica of agent Greer's driving licence he had bought in the arcade near the flyover, he walked towards the young man sitting in the back row. Already his identity had begun to fade, the choreography of his hands tracing a last cipher across the blunted air.

Epiphany of these Deaths. The bodies of his wife and Karen Novotny lay on the floor of the empty swimming pool. In the car port Coma and Kline had taken their seats in the white Pontiac. Trabert watched them prepare to leave. At the last moment Coma seemed to hesitate, her broad mouth showing the scars on her lower lip. When they had gone, the helicopters rose from their waiting grounds along the highway. Trabert looked up as the sky was filled with these insane machines. Yet in the contours of his wife's thighs, in the dune-filled eyes of Karen Novotny, he saw the assuaged time of the astronauts, the serene face of the President's widow.

The Serial Angels. Undisturbed now, the vaporising figures of the dead astronauts diffused across the launching grounds, recreated in the leg stances of a hundred starlets, in a thousand bent auto-fenders, in the million instalment deaths of the serial magazines.

Camp Concentration: continued from page 19

one would not have thought so to see Mordecai tear through it. He delivered the lines that begin "*Why this is hell, nor am I out of it*" with chilling grace, as though this admission of irrevocable damnation and despair were nothing more than an epigram, some piece of inconsequence by Sheridan or Wilde.

And oh! I might go on praising, singling out a touch here, a phrasing there, a piece of business, but it would come down to the same thing—I would have to relate how in the last act Faustus, lamenting in those last agonised minutes before hell would claim him, suddenly ceased to be Faustus: again, and with terrible violence, George Wagner lost every scrap and dribble from his stomach. He sobbed and choked, rolling on the slippery stage in a sort of fit, until the guards came to carry him back to the infirmary, leaving the make-believe devils empty-handed in the wings.

"Mordecai," I asked, "what is it? Is he still sick? What's wrong with him?"

And Mordecai, icily, not yet out of character: "Why, that's the price all good men must pay for knowledge. That's what comes of eating magic apples."

"You mean that the . . . drug they've given you, the drug that's made you so . . . that it can do that too?"

He smiled a pained smile and reached up a heavy hand to remove his horns.

"What the hell," said Murray Sandemann (which—not Something-or-other—is the surname of the alchymi-

cal enthusiast). Why don't you answer asshole's question?"

"Shut up, Murray," Mordecai said.

"Oh, don't worry about me. I won't tell him. It wasn't me, after all, who had him brought here. But now that he is here, isn't it a bit late to be so solicitous of his innocence?"

"Just shut up."

"I mean," Murray concluded, "did anyone worry about our eating magic apples?"

Mordecai turned to regard me, his dark face almost invisible in the caliginous stagelight. "Do you want your question answered, Sacchetti? Because from now on, if you don't, you shouldn't ask."

"Tell me," I said, feeling trapped into a show of greater daring than I really felt. (Was this how Adam fell?) "I want to know."

"George is dying. He's got a couple weeks left, with any luck. Less, I suppose, after what we've just seen."

"We're all dying," Murray Sandemann said.

Mordecai nodded, poker-faced as ever. "We're all dying. From the drug they gave us. Pallidine. It rots the brain. It takes nine months to do the job thoroughly, sometimes a little more, sometimes a little less. And all the while you rot you're getting smarter. Until—" Mordecai, his left hand sweeping low, elegantly indicated the pool of George's vomit.

(Part 2 will be published next month)

JOHN T. SLADEK:

1937 A.D.!

PICTURE, if you will, an inventor, working in his bicycle shop in 1878. His long hair occasionally falls in his eyes; he shakes it aside impatiently, flexes sinewy arms against the pull of a wrench, biting his lip with preoccupation. Now and then he may pause to sip some of the cool lemonade his widowed Mom has brought to him, sip and glance up at the picture of Sam Franklin on the whitewashed plank wall. *Early to bed and early to rise . . .* he thinks. *A penny saved is a penny earned.* His serious brows knit, as he ferrets the last bit of truth from these proverbs.

Such an inventor was Emil Hart. He and his mother shared a small cottage exactly in the centre of the state of Kiowa. Their modest home was otherwise undistinguished except for a heavy mortgage, which the good widow hoped to reduce. Toward that end she knitted clever antimacmillans (lacy affairs designed to protect the tops of sofas and chairs from a then-popular hair grease called MacMillan's) and sold peafowl eggs. Emil augmented this meagre income by repairing bicycles and selling the FRIDAY EVENING POST (founded by Sam Franklin). Yet he knew fate intended for him a greater calling—inventor of the Time Engine!

One day Fenton Morbes, the town bully, stopped by. Seeing the great engine spread over the entire shop, he whistled with amazement.

"What'cher doing?" he asked.

"I'm only filing a bit of isinglass," said Emil, shaking the hair from his eyes. He had no time to waste speaking to Morbes.

"I mean, what'cher building?" Morbes removed his bicycle clips and tossed them carelessly into a corner. They were made of costly aluminium, for he was rich.

Emil sighed. "I'm building a temporal extrapolator," he said. "It will enable me to go into the future."

The bully guffawed. "Stuff!" he said. "Nobody kin go into the future!"

With a knowing smile, Emil bent over his work.

After fitting the piece of isinglass into a gear of peculiar shape, he set about attaching a pair of wires to a telegraph key.

Morbes flushed red about the nostrils of his broad, saddle-like nose. He was not used to being ignored. "Stuff!" he exclaimed once more. "Even if it works, this here engine won't bring in enough to feed your peafowls, let alone pay the mortgage when my Paw comes around to foreclose."

"Foreclose!" said the young inventor, growing pale.

"Yep. You'd better have a hundred dollars ready by next Monday," said Morbes with a grin. "Tell you what. If you'll wash my bicycle, I'll give you a whole dollar. Get it spanking clean, now, for I'm to go on a picnic today, with Miss Maud Peed."

At this news, Emil grew even paler, and staggered back as though he'd been struck.

"Oh, I know you been kinda sweet on her," smirked the bully. "But she ain't got no time for a crazy feller what putters around his bicycle shop with time engines. Hah!"

No time for him! As the colour continued to ebb from Emil's face, and into the coarser features of his rival, he wondered what strange fate it was that had made them both suitors for the hand of the lovely Maud Peed. So be it. He raised his tear-filled eyes once more to the portrait of Sam Franklin. He seemed to draw strength from the homely features, the rheumy eyes. What was the right thing to do, the truly *Columbian* thing? To try to stay and win Maud back from Fenton Morbes—a hopeless task? Or to escape into the bright future, and there seek his fortune?

In a moment he had made his decision. He would go into tomorrow! He would see 1937 A.D., that promised land—the very system of numbering our years promised it! He would drink in its wonders: flying machines, the bridge across the English Channel, immortality through mesmerism, electric cannon, a

place at peace, where the sun never set on the flag of the United States of Columbia!

"Are you gonna stand gawking at that pitcher or are you gonna wash my wheel?" demanded Morbes.

"Neither. You may take yourself off my property at once," replied Emil. Raising his clenched fists, he added, "Go to Maud Peed. And tell her—tell her—"

His hands dropped to his sides, and as his head bowed, the unruly lock of hair fell over his eyes. He looked not unlike the young Abner Lincoln, thought Morbes idly.

"—tell her," Emil said quietly, "that the best man has won. I wish you both a—haha—a happy future!" With a strangled sob he turned away.

Morbes was so startled by this outburst that he was unable to summon a bluster to his lips. He turned and walked out.

Emil knew he had done the right thing. Without another regret, he filled his pockets with his Mom's home-baked cookies, took a last sip of lemonade, and began to pedal the great generator that powered his engine. He had mounted a special clock face on the handlebars before him, and when its hands reached 1937, he depressed the telegraph key. "Now it is

1937 A.D.!" he exclaimed, and looked about him.

The room had not changed considerably, though it seemed to have become some sort of museum. Emil found himself surrounded by velvet ropes.

"Here, get off there!" said a man in uniform. He seized Emil's arm and dragged him away from the time engine. "You're not to touch the exhibits, understand?"

Before the bewildered inventor could explain, he found himself outside the shop, looking up at a brass plaque which read, "The Emil Hart Historical Museum". He was historical!

Pausing only a moment to marvel at his fate, Emil strode toward the main street of town, eager to see the changes time had wrought. The streets, he noticed, had a new hard surface, and there was not a trace of manure upon it!

Then he saw them, lined up at the sidewalk. Great trackless locomotives, just as he had imagined them. As he watched, two men emerged from a store and entered one of them. Through its window he could see one man shovelling coal into the boiler while the other turned valves. In a moment, the great, chuffing engine moved off down the street.

His momentary elation dissipated at once, when Emil turned to look at the shops. There was not a single new building on Main Street, and though many had installed large plate glass windows, the facades above them were faded, dirty and abused. Delmonico's Dining Room had become the Eateria, but Carlson's Peafowl Feed Store had not even changed its sign. Emil examined the contents of a clothing store window, his gorge rising at their dull familiarity. Why weren't people attired in seminude costumes of gold, with

scarlet capes? The manninkins showed only women in the same silly hats and long gowns, men in dark, dull suits. Worse, the one or two pedestrians he glimpsed wore overalls of the same cut and hue as his own.

He was thoroughly depressed by the time he reached the end of the town's single street and the Public Library. Despairing of seeing any more wonderful inventions like the trackless locomotive, Emil made his way into the familiar building to the tiny room marked "Science and Technology". Here at last he might find respite from the past. Here he might find the future that seemed to have overlooked his town.

He opened a volume marked "Inventions". Yes, here they were: Thomas Elva Addison, the electric light; Burgess Venn, the flying machine; Gordon Q. Mott, the televidium—what in the world was that?

He looked it up in the back of the book, and learned that it was a visual counterpart to the radium. The latter sent verbal messages over long distances by means of electrical "waves" in the æther, while the former did the same for visual messages. He thrilled to the idea of electrical waves moving about everywhere, in this room, passing right through his body. It was only because of the intensity of Emil's meditation that he failed to notice the figure at his elbow.

"Hullo, Emil." It was Morbes.

"You used my machine?"

"Yep. I came back to get my bicycle clips and I seen you was gone. Well, I got to thinking—a feller could make himself a pile of money outa knowing what happens in the future. So here I am. Where do they keep the old newspapers?"

"What are you going to do?" Emil leapt to his feet, knocking over a chair. Another reader cleared his throat.

"Read about a few horse races—and some stock market stuff. I'm rich now, Emil Hart, but I'm gonna be richer." Morbes's grin displayed a row of uneven, stained teeth.

"You can't! It's dishonest! Think of all the little stockholders who might be ruined by your speculations!" cried Emil. He followed the bully into the Historical & Periodical room, and seized his arm. Morbes shook his hand away.

"Leave me alone!" he bellowed. "I'll do as I see fit!"

"Yes, do leave him alone!" commanded a childish voice. "I'm trying to read here, and you're creating a disturbance." Emil looked around to confront a boy of about ten, whose forehead was creased with annoyance beneath the line of his yellow bangs.

Grimacing, Morbes said, "Lad, where's the newspapers? You know, the WAAL STREET JOURNAL?"

"I don't know. All they have in here is this." The boy indicated the volume open before him, in which he had been scribbling with a pen. Emil noticed it was one of a large matched set that seemed to occupy all the shelves of the room. There were thousands of volumes.

"But this will have whatever you're looking for,"

said the boy. "It has a synopsis of everything."

The set of books was entitled *The Universal Synopsis*.

"Say!" exclaimed Morbes, illuminated by an uncharacteristic flash of intuition. "If I get rich like I ought to, there should be something about *me* in that book."

He searched a moment, then came to the table with volume MORAY-MORBID and seated himself opposite the boy.

"Here it is! Morbes, Fenton Jr.," he read at the top of his lungs.

"Don't read on!" said Emil. "We're not meant to know our own futures."

"Stuff! Who's to stop me?"

"I am!" Emil shouted, and snatching up the boy's pen, dipped it and lined out the passage Morbes was about to read.

"Say, why'd you do that? I—"

With an audible click, Fenton Morbes vanished.

"How interesting!" said the boy. "I was right, then. This is the only extant copy."

"What?" Emil stood frozen, gaping at the space his rival had vacated so abruptly.

"You don't know what happened? That was the 'Doppler Effect', named for myself, Julius Doppler. Sit down, won't you, and I'll explain it to you."

Emil eased himself into a chair and with effort directed his gaze toward the serious, freckled face.

"You see, I've developed a theory that the future influences the past. I was fortunate in finding *The Universal Synopsis* on which to test it. If this were, as I believed it to be, the only copy of the only book in which many items appeared, why then it follows that I can change the past by merely rewriting it."

"But how can you change history?" asked Emil, mystified.

"It's simple semantics: The word is the thing—at least after the thing ceases to be. Alter a word in the future and you alter the thing it once stood for. Let me show you."

The boy opened his volume to a page and pointed. "Now here, I altered the name 'Sam Franklin' to 'John Franklin', for example. But if in the future, someone came along and changed it to—say—'Ben', why he'd be Ben, don't you see?"

"No."

"All right, look here, then." Julius turned to a map of the United States. There was the familiar pink lozenge that was Kiowa, and just above it, the green hourglass of Minnehaha—but the names were wrong! "Kiowa" missed its "K", and Minnehaha read "Minnesota"! And the name at the bottom of the page, following "The United States of" was not "Columbia" but some unpronounceable Latin name! The map was wrong, it had been printed wrong!

"Last week," said the boy, "I made these changes in ink. Now this week they are part of the original book."

"But how can that be?"

Julius frowned. "I think the past must influence the future, too," he said. "But the influence is *slower*. My theory is really quite a simple one, but I couldn't possibly explain it to *you*, not all of it. Why, you don't even understand $E=mc^2$, for Pete's sake."

"I understand one thing," said Emil, leaping up. "I know that I *killed* poor Morbes! I am a murderer!"

"Don't take it so hard," said the boy. "You wouldn't have, if it weren't for me. In fact, the only reason you're a time-traveller is because I wrote the whole thing in the margin near your name."

"My name?" Emil was electrified at this reminder of his fame. "My name . . . Won't you have a cookie?"

"Thanks." The two of them munched Widow Hart's cookies and discussed the theory once more, until Emil was sure he understood. He was not so sure he liked being at the mercy of the future, but when one considered it, it was no worse than being at the mercy of the past. One survived.

When the last cookie was gone, Emil rose and took his leave. He strolled back to the museum and paid his admission. After a few moments, he was able to seize an opportunity when the guard was not looking and leap upon his time engine. He pedalled furiously backward to 1878, and what a glorious feeling mounted in his breast as he gazed once more on the homely features of John Franklin.

"I *am* healthy, wealthy and wise—or shall be shortly," Emil told himself. "My rival is gone—I don't even remember his name—and I am to be famous!"

After changing to his Sunday clothes, he picked a nosegay of his Mom's flowers and set off toward the Peed house.

Mr. Peed was seated in the porch swing, industriously polishing his pipe against his nose.

"Hallo, young Hart," he called out. "What brings you out this evening, all dressed up like that?"

"I—," Emil began, then realized he did not know the answer. Why *had* he come to see Mr. and Mrs. Peed?

"Flowers for your wife," he decided aloud. "From Mom's garden."

"Whose wife?" asked Peed, leaning forward to accept the nosegay. "I ain't married, son. I—"

Peed's outstretched hand grew transparent. Then Peed, porch and house vanished with a click.

It was a nightmare! Emil hurried home to check on his Mom. There was no telling who might click out of existence next!

He was reassured by the sight of her frail old figure tottering into his shop with a tray.

"Here, let me take that," he said, and accepted the tray from her careworn hands.

"Lemonade and cookies—for me? Gee, you're good, Mom!" He bent and kissed her white hair. With a beatific smile, the old lady tottered back to her kitchen, whence came the smell of fresh baking. Fearfully, Emil watched until she was out of sight.

Continued on Page 39

Sleep, Dreams and Computers

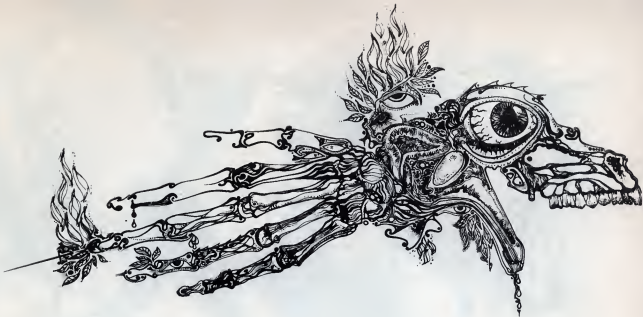
Dr. Christopher Evans

TWENTY YEARS AGO, if one wanted to get a dull answer to an interesting question one would buttonhole a psychologist and ask him if machines could be said to possess intelligence. His answer would almost certainly revolve around two counter-questions, "What do you mean by Intelligence?" and (worse) "What do you mean by a Machine?" If one then tried one's luck with an engineer, or some other type of scientist concerned with machines, one might, surprisingly, do a lot better, for engineers, who know quite a lot about the way the Universe ticks, tend to have less inhibited imaginations than psychologists, who, generally speaking, know practically nothing about anything.

It was, in fact, the mathematician-cum-engineer, the great and eccentric Englishman Alan Turing, who first faced up squarely to the problems of machine intelligence in an extremely important paper published in *MIND* in 1950. This article, "Can a Machine Think?", had a profound effect on scientific and philosophical thought at the time, but the drawing of analogies between hyper-complex computing machinery and the beautifully miniaturised circuitry of the brain was generally frowned upon by psychologists and engineers alike. The blossoming science of Cybernetics did its best to close the gap though, and today we find ourselves exploring these analogies further and further, and finding them increasingly useful. In fact, quite recently, a striking analogy between complex computer and dream processes allows one to take an entirely fresh look at one of the most elusively mysterious aspects of life—sleep.

RESEARCH into the nature of sleep—and its inevitable

component, dreams—has been plodding along without really getting anywhere for a century. Three major views, or systems of belief, have dominated the scene. The first states that the most obvious reason for sleep is that it provides a necessary rest period for the body, and also for the brain. A "good night's sleep", therefore, should consist of eight hours or so of near-motionless body, and of solid, dreamless sleep. Alas, physicians have known for quite some time that sleep is not essential for bodily rest, and more recently, the electroencephalograph reveals that while the patterning of electrical activity in the brain *changes* with sleep, there doesn't appear to be any *less* going on. So that's one old stager put out to pasture. A much more ancient, but still shockingly widely-held view is that sleep is a "near-death" condition when the mind or spirit can leave the body; dreams are this entity's adventures during its sizeable period of freedom. The evidence for the existence of telepathic and premonitory dreams (aircraft crashing, uncles dying, etc.) seems to bolster this view, and J. W. Dunne's hair-raising book, "An Experiment With Time", seems to imply that temporal as well as spatial boundaries collapse during sleep. But the evidence for telepathy and precognition, once impressive, now looks pretty thin, and leaving the question of religious belief aside most people will find this traditional view of sleeping and dreaming a bit out of touch with our present-day understanding of the world. The third classic approach, the psychoanalytic, has had, of course, a really tremendous effect on Western society, the keystone being Freud's magnificent insight as to the rôle of unconscious mental processes in our waking and sleeping life. Dreams, by this theory, represent the burst-



ing to the surface, during sleep, of the huge fund of repressed emotions and desires which are part of Man's inevitable psychological being, and yet which Society demands he deny. The power of the psychoanalytic approach is obvious to anyone who has spent even a little time in considered analysis of his own dream content, but it has, from the start seemed a bit stretched to cover *all* the experiences of one's dream life. Dreams without great emotional tags, and frequently related to simple day-to-day happenings are common in everyone's experience, and it is difficult, despite the ingenious notion of a "disguise mechanism" to see these as reflecting suppressed dynamic forces.

HAVING SUGGESTED that none of the three venerable theories of sleeping and dreaming can be considered to be comprehensive or really satisfactory, we find ourselves stuck with the amazing fact that we spend one third of our lives in a weird unconscious state, apparently merely vegetating, at the mercy of any silent attacker, and in danger of madness and death if we are deprived of this non-process for any length of time. (We can last far, far longer without food than we can without sleep.) We might not have been much the wiser even now were it not for a snappy observation by Eugene Aserinsky, a PhD student at the University of Chicago.

This young physiologist had been studying the curious movements of infants' eyes during sleep. Convinced that these had some significance, he drew the attention of the great sleep scientist, Dr. Nathaniel Kleitman, to the phenomenon, and before long careful observations on adults revealed that on and off throughout the night, periods of rapid eye movements (REMs)

took place behind closed lids. It was soon also found that people woken during these REM-periods reported dreams, while, if woken at other times, reported apparently dreamless sleep. Two knock-out facts had emerged; firstly, an objective, behavioural index of dreams seemed possible at last; secondly, the amount of time spent in dreaming turned out to be quite unpredictably large—as much as a quarter of a night's sleep in normal adults. A third fact coming from a brilliant experiment performed by Dr. William Dement of the Mount Sinai Hospital in New York, rammed the message home even harder, Dement found that individuals woken time after time during REM-sleep became mentally disturbed after a few nights, while a control group, woken for a similar amount of time, but during non-REM periods, showed no detectable mental upset. It looked as though the lid was off. The purpose of sleep was to enable us to dream!

All this happened in 1960. A year later, as an impoverished PhD student myself, with, apart from a number of beautiful girl friends, no visible means of support, I found my thoughts constantly, almost obsessively drifting away from the subject of my thesis ("Some further studies of Pattern Perception using the technique of Retinal Stabilisation") and churning over the staggering new material on sleep and dreams. It seemed obvious to me that the whole field had been turned topsy-turvy. Sleep was no longer a rest period, dreams no longer a mistake. But what then could the function of dreams be? My first ideas centred around what I thought of as a "mental defaecation"; all data absorbed during the day could hardly be stored (I believed), so perhaps it was held in some kind of short-



term memory store until the night, when with sleep intervening to prevent further input, the day's memories could be scanned and the "waste" material rejected. Dreams, I reasoned—or what we normally talk of as dreams—take place when the mental defecation or sorting process is interrupted by the sleeper waking. The material is then remembered, and the purpose of the dream forestalled. I was obsessed with the idea, but nevertheless realised that an important piece in the scheme was missing, and try as I would, I couldn't find it. Three years later, in the summer of 1964, over a very long lunch with a colleague, the distinguished computer engineer Ted Newman, the missing piece fell into place, and that same afternoon our joint paper, "Dreaming; analogy from computers" began to take shape.

COMPUTERS, as few will need reminding, are very complex calculating machines, capable of a very wide range of tasks, and controlled by sets of programmes—instructions to the device to use its brain in a particular way. Now at the moment the range of tasks which computers perform, when compared with the range potential of the human brain, is small; nevertheless the programmes need constant revision, updating, de-bugging and re-classification if the computer is to continue to perform its tasks with speed and accuracy. The programme clearance process is performed first by taking the computer "off-line" (uncoupling it from the tasks it is controlling) and then running the old programmes through, revising them and finally checking them again. Were this process to take place with the system not off-

line, weird tasks would be performed by the computer, and, of course, if the process is much delayed computers become muddled, grossly inaccurate and incapable of doing their job properly. Furthermore, as we move to bigger, smarter and more adaptable computers, this process will become progressively more important, and will take up more and more time. At the moment it is performed for the computer by a technician or programmer; before too long, some form of automatic programme clearance system, with a regular period set aside for the job will be vital if the computer is to work steadily, day in and day out.

REMEMBERING that the brain is itself a super-computer, brilliantly fast, with unparalleled storage facilities and speed of access, and yet undoubtedly controlled by some programme system, we can see that some process similar to that described above for man-made machines should be present. And this, in our view, is what sleeping and dreaming is all about. Sleep itself is the act of taking and keeping the brain-computer off-line, in order to allow the re-classification and de-bugging to take place without interaction with the outside world; dreams are the *actual running-through of the programmes*, a process which the individual is not normally aware of, unless for some reason he wakes (comes on-line) when the programme segment in operation is interrupted. If this happens an attempt is made by the conscious brain to "interpret" it as a kind of pseudo-event and a "dream" is remembered. The real core of dreams, of course, will be odd mixtures of stuff, almost all to do with recent events and experiences in the life of the dreamer, thoughts about recent or long-past events,

current ideas and obsessions, worries, desires, hopes and wishes, and so on. In fact, anything done in the course of the day which requires assimilation into the great mass of existing programmes. The logic of the brain's programme system, of course, need not follow the lines that we feel it ought to. This is important to help in understanding why the dream-programmes, when interrupted, often seem pretty crazy. It's just as well, by the way, that our off-line mechanism is so potent and remorseless, for the experience of being fully conscious of a full-night's dreaming would be at best boring, at worst, unthinkable horrific. Anyone who has had a bad fever and suffered a period in which sleep is persistently disturbed, and the raw, hard stuff of dreams sampled intermittently throughout the night will understand what I mean.

ONCE ACCEPTED, the computer analogy suggests some fabulous ideas. Some are a bit too fabulous to put into orthodox scientific publications as yet, but I can think of no better market at this stage than NEW WORLDS. Idea One: many gross psychological disorders are due to a disfunction of the *dreaming* process; confusion, loss of touch with reality, paranoid symptoms and persecution complexes are symptomatic of experimentally dream-deprived subjects, and also of schizophrenic states. Idea Two: if the latter is true, then a crash programme of research should be instituted by the pharmacological research organisations to develop a drug which allows the maximum amount of dreaming to take place during sleep. Such a drug might have dramatic therapeutic effects on chronic schizophrenics. Idea Three: barbiturate sedation might act by depressing the central nervous system so much that the dream process itself is inhibited, for at least part of the night. Thus, though apparently sleeping like logs, nightly barbiturate takers could be gradually driving themselves

into a state equivalent to that of chronic sleep deprivation. Idea Four: the hallucinations characteristic of schizoid conditions and of advanced alcoholic addiction, might be waking dreams forced into action because of the disfunction or suppression of normal dreaming at night. Grim warning for all experimental and joy-riding takers of hallucinogenic drugs, including LSD; the long-term effect might be to permanently interfere with the dream mechanism. Prediction: habitual users of LSD will sooner or later flip—for good. Idea Five: the more new material processed in the course of the day, the more programme revision and updating required. Therefore, the younger one is, the more dreaming one will need. Old people who put down very little new material, and who have in general a very constant environment, will need substantially less dreaming and thus less sleep. Should they not be taught to accept without worry their natural tendency to sleeplessness, and learn to make use of the bonus hours they have gained? Idea Six: sleep learning is *out*. It might work, but only at the risk of muddling vital programme clearance activities. Not quite, but very nearly as dangerous as LSD. The reader might care to amuse himself by adding others to this by no means exhaustive list.

Whether the computer analogy will stand up to the test of new experimental discoveries or not is uncertain. One thing is clear however; we are witnessing a revolution in scientific thinking which might well have considerable social consequences. Our understanding about the hidden third of our lives is growing daily, and this is but one of the ways in which the brain is being induced to give up its secrets. We already have computers which can read, understand speech, talk and write. Soon we shall have them learning, thinking and, as I've just pointed out, even dreaming. And what, people occasionally ask, appalled, will computers' dreams be like? It's hard to say, of course. I've a feeling, however, that they'll be no madder than ours.

NEXT MONTH

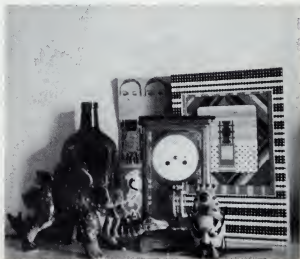
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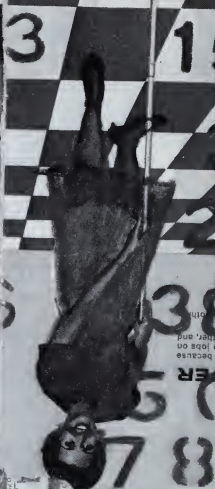
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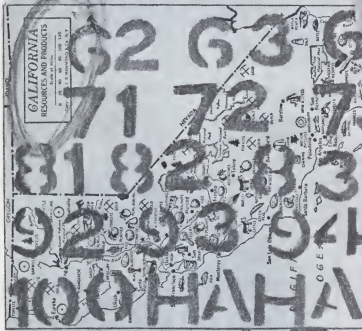
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by it... the gold discovered later in 1848 caused a massive influx of immigrants to the territory, which in 1850 was admitted to the Union. The prosperity of the state was greatly enhanced by the arrival of the Union Pacific Railroad in 1869. A disastrous earthquake and the resulting fire destroyed a large part of San Francisco and injured many visitors to the Panama-Pacific Exposition, held in the city in 1915, found a new and more beautiful city in the old town.

CALIFORNIA
RESOURCES AND PRODUCTS



FOR FASTER

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THE HEAT DEATH OF THE UNIVERSE

1. **ONTOLOGY:** That branch of metaphysics which concerns itself with the problems of the nature of existence or being.

2. Imagine a pale blue morning sky, almost green, with clouds only at the rims. The earth rolls and the sun appears to mount, mountains erode, fruits decay, the Foraminifera adds another chamber to its shell, babies' fingernails grow as does the hair of the dead in their graves, and in egg timers the sands fall and the eggs cook on.

3. Sarah Boyle thinks of her nose as too large, though several men have cherished it. The nose is generous and performs a well calculated geometric curve, at the arch of which the skin is drawn very tight and a faint whiteness of bone can be seen showing through, it has much the same architectural tension and sense of mathematical calculation as the day after Thanksgiving breastbone on the carcass of turkey; her maiden name was Sloss, mixed German, English and Irish descent; in grade school she was very bad at playing softball and, besides being chosen last for the team, was always made to play center field, no one could ever hit to center field; she loves music best of all the arts, and of music, Bach, J.S.; she lives in California, though she grew up in Boston and Toledo.

4. **BREAKFAST TIME AT THE BOYLE'S HOUSE ON LA FLORIDA STREET, ALAMEDA, CALIFORNIA. THE CHILDREN DEMAND SUGAR FROSTED FLAKES.**

With some reluctance Sarah Boyle dishes out Sugar

Frosted Flakes to her children, already hearing the decay set in upon the little milk white teeth, the bony whine of the dentist's drill. The dentist is a short, gentle man with a moustache who sometimes reminds Sarah of an uncle who lives in Ohio. One bowl per child.

5. If one can imagine it considered as an abstract object, by members of a totally separate culture, one can see that the cereal box might seem a beautiful thing. The solid rectangle is neatly joined and classical in proportions, on it are squandered wealths of richest colours, virgin blues, crimsons, dense ochres, precious pigments once reserved for sacred paintings and as cosmetics for the blind faces of marble gods. Giant size. Net Weight 16 ounces, 250 grams. "They're tigeriffic!" says Tony the Tiger. The box blatts promises: Energy, Nature's Own Goodness, an endless pubescence. On its back is a mask of William Shakespeare to be cut out, folded, worn by thousands of tiny Shakespeares in Kansas City, Detroit, Tuscon, San Diego, Tampa. He appears at once more kindly and somewhat more vacant that we are used to seeing him. Two or more of the children lay claim to the mask, but Sarah puts off that Solomon's decision until such time as the box is empty.

6. A notice in orange flourishes states that a Surprise Gift is to be found somewhere in the package, nestled amongst the golden flakes. So far it has not been unearthed, and the children request more cereal than they wish to eat, great yellow heaps of it, to hurry the discovery. Even so, at the end of the meal, some layers of flakes remain in the box and the Gift must

still be among them.

7. There is even a Special Offer of a secret membership, code and magic ring; these to be obtained by sending in the box top with 50c.

8. Three offers on one cereal box. To Sarah Boyle this seems to be oversell. Perhaps something is terribly wrong with the cereal and it must be sold quickly, got off the shelves before the news breaks. Perhaps it causes a special, cruel Cancer in little children. As Sarah Boyle collects the bowls printed with bunnies and baseball statistics, still slopping half full of milk and wilted flakes, she imagines *in her mind's eye* the headlines, "Nation's Small Fry Stricken, Fate's Finger Sugar Coated, Lethal Sweetness Socks Tots".

9. Sarah Boyle is a vivacious and intelligent young wife and mother, educated at a fine Eastern college, proud of her growing family which keeps her busy and happy around the house.

10. BIRTHDAY.

Today is the birthday of one of the children. There will be a party in the late afternoon.

11. CLEANING UP THE HOUSE. ONE.

Cleaning up the kitchen. Sarah Boyle puts the bowls, plates, glasses and silverware into the sink. She scrubs at the stickiness on the yellow-marbled formica table with a blue synthetic sponge, a special blue which we shall see again. There are marks of children's hands in various sizes printed with sugar and grime on all the table's surfaces. The marks catch the light, they appear and disappear according to the position of the observing eye. The floor sweepings include a triangular half of toast spread with grape jelly, bobby pins, a green band-aid, flakes, a doll's eye, dust, dog's hair and a button.

12. Until we reach the statistically likely planet and begin to converse with whatever green-faced, teleporting denizens thereof—considering only this shrunk and communication-ravaged world—can we any more postulate a separate culture? Viewing the metastasis of Western Culture it seems progressively less likely. Sarah Boyle imagines a whole world which has become like California, all topographical imperfections sanded away with the sweet smelling burr of the plastic surgeon's cosmetic polisher; a world populace dieting, leisured, similar in pink and mauve hair and rhinestone shades. A land Cunt Pink and Avocado Green, brassiered and girdled by monstrous complexities of Super Highways, a California endless and unceasing, embracing and transforming the entire globe, California!

13. INSERT ONE. ON ENTROPY.

ENTROPY: A quantity introduced in the first

place to facilitate the calculations, and to give clear expressions to the results of thermodynamics. Changes of entropy can be calculated only for a reversible process, and may then be defined as the ratio of the amount of heat taken up to the absolute temperature at which the heat is absorbed. Entropy changes for actual irreversible processes are calculated by postulating equivalent theoretical reversible changes. The entropy of a system is a measure of its degree of disorder. The total entropy of any isolated system can never decrease in any change; it must either increase (irreversible process) or remain constant (reversible process). The total entropy of the Universe therefore is increasing, tending towards a maximum, corresponding to complete disorder of the particles in it (assuming that it may be regarded as an isolated system). See *heat death of the Universe*.

14. CLEANING UP THE HOUSE. TWO.

Washing the baby's diapers. Sarah Boyle writes notes to herself all over the house; a mazed wild script larded with arrows, diagrams, pictures; graffiti on every available surface in a desperate/heroic attempt to index, record, bluff, invoke, order and placate. On the fluted and flowered white plastic lid of the diaper bin she has written in Blushing Pink Nitetime lipstick a phrase to ward off fumey ammoniac despair. "The nitrogen cycle is the vital round of organic and inorganic exchange on earth. The sweet breath of the Universe." On the wall by the washing machine are Yin and Yang signs, mandalas, and the words, "Many young wives felt trapped. It is a contemporary sociological phenomenon which may be explained in part by a gap between changing living patterns and the accommodation of social services to these patterns". Over the stove she had written "Help. Help. Help. Help. Help".

15. Sometimes she numbers or letters the things in a room, writing the assigned character on each object. There are 819 separate moveable objects in the living room, counting books. Sometimes she labels objects with their names, or with false names, thus on her bureau the hair brush is labeled HAIR BRUSH, the cologne, COLOGNE, the hand cream, CAT. She is passionately fond of children's dictionaries, encyclopaedias, ABCs and all reference books, transfixed and comforted at their simulacra of a complete listing and ordering.

16. On the door of a bedroom are written two definitions from reference books, "GOD: An object of worship"; "HOMEOSTASIS: Maintenance of constancy of internal environment".

17. Sarah Boyle washes the diapers, washes the linen, Oh Saint Veronica, changes the sheets on the baby's crib. She begins to put away some of the toys, stepping over and around the organizations of playthings which still seem inhabited. There are various

vehicles, and articles of medicine, domesticity and war; whole zoos of stuffed animals, bruised and odorous with years of love; hundreds of small figures, plastic animals, cowboys, cars, spacemen, with which the children make sub and supra worlds in their play. One of Sarah's favourite toys is the Baba, the wooden Russian doll which, opened, reveals a smaller but otherwise identical doll which opens to reveal, etc., a lesson in infinity at least to the number of seven dolls.

18. Sarah Boyle's mother has been dead for two years. Sarah Boyle thinks of music as the formal articulation of the passage of time, and of Bach as the most poignant rendering of this. Her eyes are sometimes the colour of the aforementioned kitchen sponge. Her hair is natural spaniel brown; months ago on an hysterical day she dyed it red, so now it is two-toned with a stripe in the middle, like the painted walls of slum buildings or old schools.

19. INSERT TWO. THE HEAT DEATH OF UNIVERSE.

The second law of thermodynamics can be interpreted to mean that the ENTROPY of a closed system tends toward a maximum and that its available ENERGY tends toward a minimum. It has been held that the Universe constitutes a thermodynamically closed system, and if this were true it would mean that a time must finally come when the Universe "unwinds" itself, no energy being available for use. This state is referred to as the "heat death of the Universe". It is by no means certain, however, that the Universe can be considered as a closed system in this sense.

20. Sarah Boyle pours out a Coke from the refrigerator and lights a cigarette. The coldness and sweetness of the thick brown liquid make her throat ache and her teeth sting briefly, sweet juice of my youth, her eyes glass with the carbonation, she thinks of the Heat Death of the Universe. A logarithmic of those late summer days, endless as the Irish serpent twisting through jewelled manuscripts forever, tail in mouth, the heat pressing, bloating, doing violence. The Los Angeles sky becomes so filled and bleached with detritus that it loses all colour and silvers like a mirror, reflecting back the fricasseeing earth. Everything becoming warmer and warmer, each particle of matter becoming more agitated, more excited until the bonds shatter, the glues fail, the deodorants lose their seals. She imagines the whole of New York City melting like a Dali into a great chocolate mass, a great soup, the Great Soup of New York.

21. CLEANING UP THE HOUSE. THREE.

Beds made. Vacuuming the hall, a carpet of faded flowers, vines and leaves which endlessly wind and twist into each other in a fevered and permanent ecstasy. Suddenly the vacuum blows instead of sucks, spewing marbles, dolls' eyes, dust, crackers. An old

trick. "Oh my god," says Sarah. The baby yells on cue for attention/changing/food. Sarah kicks the vacuum cleaner and it retches and begins working again.

22. AT LUNCH ONLY ONE GLASS OF MILK IS SPILLED.

At lunch only one glass of milk is spilled.

23. The plants need watering, Geranium, Hyacinth, Lavender, Avocado, Cyclamen. Feed the fish, happy fish with china castles and mermaids in the bowl. The turtle looks more and more unwell and is probably dying.

24. Sarah Boyle's blue eyes, how blue? Bluer far and of a different quality than the Nature metaphors which were both engine and fuel to so much of precedent literature. A fine, modern, acid, synthetic blue; the shiny cerulean of the skies on postcards sent from lush subtropics, the natives grinning ivory ambivalent grins in their dark faces; the promising, fat, unnatural blue of the heavy tranquilizer capsule; the cool, mean blue of that fake kitchen sponge; the deepest, most unbelievable azure of the tiled and mossless interiors of California swimming pools. The chemists in their kitchens cooked, cooled and distilled this blue from thousands of colourless and wonderfully constructed crystals, each one unique and nonpareil; and now that colour, hisses, bubbles, burns in Sarah's eyes.

25. INSERT THREE. ON LIGHT.

LIGHT: Name given to the agency by means of which a viewed object influences the observer's eyes. Consists of electro-magnetic radiation within the wavelength range 4×10^{-5} cm. to 7×10^{-5} cm. approximately; variations in the wave-length produce different sensations in the eye, corresponding to different colours. See colour vision.

26. LIGHT AND CLEANING THE LIVING ROOM.

All the objects (819) and surfaces in the living room are dusty, grey common dust as though this were the den of a giant, moulting mouse. Suddenly quantities of waves or particles of very strong sunlight speed in through the window, and everything incandesces, multiple rainbows. Poised in what has become a solid cube of light, like an ancient insect trapped in amber, Sarah Boyle realizes that the dust is indeed the most beautiful stuff in the room, a manna for the eyes. Duchamp, that father of thought, has set with fixative some dust which fell on one of his sculptures, counting it as part of the work. "That way madness lies, says Sarah," says Sarah. The thought of ordering a household on Dada principles balloons again. All the rooms would fill up with objects, newspapers and magazines would compost, the potatoes in the rack, the canned green beans in the garbage can would take new heart

and come to life again, reaching out green shoots towards the sun. The plants would grow wild and wind into a jungle around the house, splitting plaster, tearing shingles, the garden would enter in at the door. The goldfish would die, the birds would die, we'd have them stuffed; the dog would die from lack of care, and probably the children—all stuffed and sitting around the house, covered with dust.

27. INSERT FOUR. DADA.

DADA (Fr., hobby-horse) was a nihilistic precursor of Surrealism, invented in Zurich during World War I, a product of hysteria and shock lasting from about 1915 to 1922. It was deliberately anti-art and anti-sense, intended to outrage and scandalize, and its most characteristic production was the reproduction of the *Mona Lisa* decorated with a moustache and the obscene caption LHOOU (read: *elle a chaud au cul*) "by" Duchamp. Other manifestations included Arp's collages of coloured paper cut out at random and shuffled, ready-made objects such as the bottle drier and the bicycle wheel "signed" by Duchamp, Picabia's drawings of bits of machinery with incongruous titles, incoherent poetry, a lecture given by 38 lecturers in unison, and an exhibition in Cologne in 1920, held in an annexe to a café lavatory, at which a chopper was provided for spectators to smash the exhibits with—which they did.

28. TIME PIECES AND OTHER MEASURING DEVICES.

In the Boyle house there are four clocks; three watches (one a Mickey Mouse watch which does not work); two calendars and two engagement books; three rulers; a yard stick; a measuring cup; a set of red plastic measuring spoons which includes a tablespoon, a teaspoon, a one-half teaspoon, one-fourth teaspoon and one-eighth teaspoon; an egg timer; an oral thermometer and a rectal thermometer; a Boy Scout compass; a barometer in the shape of a house, in and out of which an old woman and an old man chase each other forever without fulfilment; a bathroom scale; an infant scale; a tape measure which can be pulled out of a stuffed felt strawberry; a wall on which the children's heights are marked; a metronome.

29. Sarah Boyle finds a new line in her face after lunch while cleaning the bathroom. It is as yet barely visible, running from the midpoint of her forehead to the bridge of her nose. By inward curling of her eyebrows she can etch it clearly as it will come to appear in the future. She marks another mark on the wall where she has drawn out a scoring area. Face Lines and Other Intimations of Mortality, the heading says. There are thirty-two marks, counting this latest one.

30. Sarah Boyle is a vivacious and witty young wife and mother, educated at a fine Eastern college, proud of her growing family which keeps her happy and

busy around the house, involved in many hobbies and community activities, and only occasionally given to obsessions concerning Time / Entropy / Chaos and Death.

31. Sarah Boyle is never quite sure how many children she has.

32. Sarah thinks from time to time; Sarah is occasionally visited with this thought; at times this thought comes upon Sarah, that there are things to be hoped for, accomplishments to be desired beyond the mere reproductions, mirror reproduction of one's kind. The babies. Lying in bed at night sometimes the memory of the act of birth, always the hue and texture of red plush theatre seats, washes up; the rending which always, at a certain intensity of pain, slipped into landscapes, the sweet breath of the sweating nurse. The wooden Russian doll has bright, perfectly round red spots on her cheeks, she splits in the centre to reveal a doll smaller but in all other respects identical with round bright red spots on her cheeks, etc.

33. How fortunate for the species, Sarah muses or is mused, that children are as ingratiating as we know them. Otherwise they would soon be salted off for the leeches they are, and the race would extinguish itself in a fair sweet flowering, the last generations' massive achievement in the arts and pursuits of high civilization. The finest women would have their tubes tied off at the age of twelve, or perhaps refrain altogether from the Act of Love? All interests would be bent to a refining and perfecting of each febrile sense, each fluid hour, with no more cowardly investment in immortality via the patchy and too often disappointing vegetables of one's own womb.

34. INSERT FIVE. LOVE.

LOVE: a typical sentiment involving fondness for, or attachment to, an object, the idea of which is emotionally coloured whenever it arises in the mind, and capable, as Shand has pointed out, of evoking any one of a whole gamut of primary emotions, according to the situation in which the object is placed, or represented; often, and by psychoanalysts always, used in the sense of *sex-love* or even *lust* (q.v.).

35. Sarah Boyle has at times felt a unity with her body, at other times a complete separation. The mind/body duality considered. The time/space duality considered. The male/female duality considered. The matter/energy duality considered. Sometimes, at extremes, her Body seems to her an animal on a leash, taken for walks in the park by her Mind. The lamp posts of experience. Her arms are lightly freckled, and when she gets very tired the places under her eyes become violet.

36. Housework is never completed, the chaos always lurks ready to encroach on any area left unweeded,

a jungle filled with dirty pans and the roaring of giant stuffed toy animals suddenly turned savage. Terrible glass eyes.

37. SHOPPING FOR THE BIRTHDAY CAKE.

Shopping in the supermarket with the baby in front of the cart and a larger child holding on. The light from the ice cube tray shaped fluorescent lights is mixed blue and pink and brighter, colder, and cheaper than daylight. The doors swing open just as you reach out your hand for them, Tantalus, moving with a ghostly quiet swing. Hot dogs for the party. Potato chips, gum drops, a paper table cloth with birthday designs, hot dog buns, catsup, mustard, picalilli, balloons, instant coffee Continental style, dog food, frozen peas, ice cream, frozen lima beans, frozen broccoli in butter sauce, paper birthday hats, paper napkins in three colours, a box of Sugar Frosted Flakes with a Wolfgang Amadeus Mozart mask on the back, bread, pizza mix. The notes of a just graspable music filter through the giant store, for the most part by-passing the brain and acting directly on the liver, blood and lymph. The air is delicately scented with aluminum. Half and half cream, tea bags, bacon, sandwich meat, strawberry jam. Sarah is in front of the shelves of cleaning products now, and the baby is beginning to whine. Around her are whole libraries of objects, offering themselves. Some of that same old hysteria that had incarnadined her hair rises up again, and she does not refuse it. There is one moment when she can choose direction, like standing on a chalk drawn X, a hot cross bun, and she does not choose calm and measure. Sarah Boyle begins to pick out, methodically, deliberately and with a careful ecstasy, one of every cleaning product which the store sells. Window Cleaner, Glass Cleaner, Brass Polish, Silver Polish, Steel Wool, eighteen different brands of Detergent, Disinfectant, Toilet Cleanser, Water Softener, Fabric Softener, Drain Cleanser, Spot Remover, Floor Wax, Furniture Wax, Car Wax, Carpet Shampoo, Dog Shampoo, Shampoo for people with dry, oily and normal hair, for people with dandruff, for people with grey hair. Tooth Paste, Tooth Powder, Denture Cleaner, Deodorants, Antiperspirants, Antiseptics, Soaps, Cleansers, Abrasives, Oven Cleansers, Makeup Removers. When the same products appear in different sizes Sarah takes one of each size. For some products she accumulates whole little families of containers: a giant Father bottle of shampoo, a Mother bottle, an Older Sister bottle just smaller than the Mother bottle, and a very tiny Baby Brother bottle. Sarah fills three shopping carts and has to have help wheeling them all down the aisles. At the check-out counter her laughter and hysteria keep threatening to overflow as the pale blonde clerk with no eyebrows like the *Mona Lisa* pretends normality and disinterest. The bill comes to \$7.53 and Sarah has to write a check. Driving home, the baby strapped in the drive-a-cot and the paper bags bulging in the back seat, she cries.

38. BEFORE THE PARTY.

Mrs. David Boyle, mother-in-law of Sarah Boyle, is coming to the party of her grandchild. She brings a toy, a yellow wooden duck on a string, made in Austria; the duck quacks as it is pulled along the floor. Sarah is filling paper cups with gum drops and chocolates, and Mrs. David Boyle sits at the kitchen table and talks to her. She is talking about several things, she is talking about her garden which is flourishing except for a plague of rare black beetles, thought to have come from Hong Kong, which are undermining some of the most delicate growths at the roots, and feasting on the leaves of other plants. She is talking about a sale of household linens which she plans to attend on the following Tuesday. She is talking about her neighbour who has Cancer and is wasting away. The neighbour is a Catholic woman who had never had a day's illness in her life until the Cancer struck, and now she is, apparently, failing with dizzying speed. The doctor says her body's chaos, chaos, cells running wild all over, says Mrs. David Boyle. When I visited her she hardly *knew* me, can hardly *speak*, can't keep herself *clean*, says Mrs. David Boyle.

39. Sometimes Sarah can hardly remember how many cute, chubby little children she has.

40. When she used to stand out in center field far away from the other players, she used to make up songs and sing them to herself.

41. She thinks of the end of the world by ice.

42. She thinks of the end of the world by water.

43. She thinks of the end of the world by nuclear war.

44. There must be more than this, Sarah Boyle thinks, from time to time. What could one do to justify one's passage? Or less ambitiously, to change, even in the motion of the smallest mote, the course and circulation of the world? Sometimes Sarah's dreams are of heroic girth, a new symphony using laboratories of machinery and all invented instruments, at once giant in scope and intelligible to all, to heal the bloody breach; a series of paintings which would transfigure and astonish and calm the frenzied art world in its panting race; a new novel that would refurbish language. Sometimes she considers the mystical, the streaky and random, and it seems that one change, no matter how small, would be enough. Turtles are supposed to live for many years. To carve a name, date and perhaps a word of hope upon a turtle's shell, then set him free to wend the world, surely this one act might cancel out absurdity?

45. Mrs. David Boyle has a faint moustache, like Duchamp's *Mona Lisa*.

46. THE BIRTHDAY PARTY.

Many children, dressed in pastels, sit around the long table. They are exhausted and overexcited from games fiercely played, some are flushed and wet, others unnaturally pale. This general agitation, and the paper party hats they wear, combine to make them appear a dinner part of debauched midgets. It is time for the cake. A huge chocolate cake in the shape of a rocket and launching pad and covered with blue and pink icing is carried in. In the hush the birthday child begins to cry. He stops crying, makes a wish and blows out the candles.

47. One child will not eat hot dogs, ice cream or cake, and asks for cereal. Sarah pours him out a bowl of Sugar Frosted Flakes, and a moment later he chokes. Sarah pounds him on the back and out spits a tiny green plastic snake with red glass eyes, the Surprise Gift. All the children want it.

48. AFTER THE PARTY THE CHILDREN ARE PUT TO BED.

Bath time. Observing the nakedness of children, pink and slippery as seals, squealing as seals, now the splashing, grunting and smacking of cherry flesh on raspberry flesh reverberate in the pearl tiled steamy cubicle. The nakedness of children is so much more absolute than that of the mature. No musky curling hair to indicate the target points, no knobbly clutch of plane and fat and curvature to ennoble this prince of beasts. All well fed naked children appear edible, Sarah's teeth hum in her head with memory of bloody feastings, prehistory. Young humans appear too like the young of other species for smugness, and the comparison is not even in their favour, they are much the most peeled and unsupple of those young. Such pinkness, such utter naked pinkness; the orifices neatly incised, rimmed with a slightly deeper rose, the incessant demands for breast, time, milks of many sorts.

49. INSERT SIX. WEINER ON ENTROPY.

In Gibbs' Universe order is least probable, chaos most probable. But while the Universe as a whole, if indeed there is a whole Universe, tends to run down, there are local enclaves whose direction seems opposed to that of the Universe at large and in which there is a limited and temporary tendency for organization to increase. Life finds its home in some of these enclaves.

50. Sarah Boyle imagines, in her mind's eye, cleaning and ordering the whole world, even the Universe. Filling the great spaces of Space with a marvellous sweet smelling, deep cleansing foam. Deodorizing rank caves and volcanoes. Scrubbing rocks.

51. INSERT SEVEN. TURTLES.

Many different species of carnivorous Turtles live in the fresh waters of the tropical and temperate zones of various continents. Most Northerly of the European

Turtles (extending as far as Holland and Lithuania) is the European Pond Turtle (*Emys orbicularis*). It is from 8 to 10 inches long and may live a hundred years.

52. CLEANING UP AFTER THE PARTY.

Sarah is cleaning up after the party. Gum drops and melted ice cream surge off paper plates, making holes in the paper tablecloth through the printed roses. A fly has died a splendid death in a pool of strawberry ice cream. Wet jelly beans stain all they touch, finally becoming themselves colourless, opaque white like flocks of tamed or sleeping maggots. Plastic favours mount half-eaten pieces of blue cake. Strewn about are thin strips of fortune papers from the Japanese poppers. Upon them are printed strangely assorted phrases selected by apparently unilingual Japanese. Crowds of delicate yellow people spending great chunks of their lives in producing these most ephemeral of objects, and inscribing thousands of fine papers with absurd and incomprehensible messages. "The very hairs of your head are all numbered," reads one. Most of the balloons have popped. Someone has planted a hot dog in the daffodil pot. A few of the helium balloons have escaped their owners and now ride the ceiling. Another fortune paper reads, "Emperor's horses meet death worse, numbers, numbers."

53. She is very tired, violet under the eyes, mauve beneath the eyes. Her uncle in Ohio used to get the same marks under his eyes. She goes to the kitchen to lay the table for tomorrow's breakfast, then she sees that in the turtle's bowl the turtle is floating, still, on the surface of the water. Sarah Boyle pokes at it with a pencil but it does not move. She stands for several minutes looking at the dead turtle on the surface of the water. She is crying again.

54. She begins to cry. She goes to the refrigerator and takes out a carton of eggs, white eggs, extra large. She throws them one by one on to the kitchen floor which is patterned with strawberries in squares. They break beautifully. There is a Secret Society of Dentists, all moustached, with Special Code and Magic Rings. She begins to cry. She takes up three bunny dishes and throws them against the refrigerator, they shatter, and then the floor is covered with shards, chunks of partial bunnies, an ear, an eye here, a paw; Stockton, California, Acton, California, Chico, California, Redding, California, Glen Ellen, California, Cadix, California, Angels Camp, California, Half Moon Bay. The total ENTROPY of the Universe therefore is increasing, tending towards a maximum, corresponding to complete disorder of the particles in it. She is crying, her mouth is open. She throws a jar of grape jelly and it smashes the window over the sink. Her eyes are blue. She begins to open her mouth. It has been held that the Universe constitutes a thermodynamically closed system, and if this were true it would mean that a time must finally come when the Universe "unwinds"

itself, no energy being available for use. This state is referred to as the "heat death of the Universe". Sarah Boyle begins to cry. She throws a jar of strawberry jam against the stove, enamel chips off and the stove begins to bleed. Bach had twenty children, how many children has Sarah Boyle? Her mouth is open. Her mouth is opening. She turns on the water and fills the sinks with detergent. She writes on the kitchen wall, "William Shakespeare has Cancer and lives in California". She writes, "Sugar Frosted Flakes are the Food of the Gods". The water foams up in the sink, overflowing, bubbling on to the strawberry floor. She is about to begin to cry. Her mouth is opening. She

is crying. She cries. How can one ever tell whether there are one or many fish? She begins to break glasses and dishes, she throws cups and cooking pots and jars of food which shatter and break and spread over the kitchen. The sand keeps falling, very quietly, in the egg timer. The old man and woman in the barometer never catch each other. She picks up eggs and throws them into the air. She begins to cry. She opens her mouth. The eggs arch slowly through the kitchen, like a baseball, hit high against the spring sky, seen from far away. They go higher and higher in the stillness, hesitate at the zenith, then begin to fall away slowly, slowly, through the fine, clear air.

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HE CORNERED Julius in the library and demanded an explanation.

"Of what?" asked the youngster. "An explanation of what?"

"I'm not sure, but I think the Peeds had a daughter, and I think I was in love with her. Now she's gone, and they're gone—have you been eating again?"

"You did it yourself, pal. When you crossed out the reference to Fenton what's-his-name, you also destroyed the only existing reference to the girl, Maud. She was his wife. You got any more cookies?"

"You mean I'd have lost her in any case?"

"Uh-huh." With his mouth full of the widow's cookies, the boy explained. Destroying Maud had destroyed her parents, their parents, and so on, back to the time when some relative was famous enough to have appeared in *The Universal Synopsis*. It was difficult for Emil to follow, for not only did the boy speak with his mouth full, but neither he nor Emil could clearly remember who it was they were discussing. As Julius said, it was all very mythical—or perhaps he said mystical.

At last, Emil was brought to understand he had lost the only girl he'd ever loved. His grief was superb.

He knew it was all his own fault. If only he had not wanted to glimpse the golden towers and battlements of the future! If only he had been content! His sin was pride, pride that goeth before (or, according to Julius, cometh after) a great fall.

What had she been like, this girl he'd lost? He had some faint reminiscence of her lovely eyes being hazel—or else her hair—or was it her name? In despair, he put his head on his arms and wept unashamedly.

"Here, read this," said Julius Doppler. "It'll cheer you up."

It was the volume HART-HARUSPEX, and in it, Emil read:

Hart, Emil (1860-?), inventor of the time engine and only successful time traveller. Leaving 1878,

he journeyed into 1937, where, in a public library, he met Julius Doppler (q.v.), who explained to him the famed "Doppler Effect"—the influence of the future upon the past. After several blunders, Hart finally read his own story in *The Universal Synopsis* (q.v.), and realized as he did so that, had he read it earlier, he might have avoided making a costly mistake, the deletion of some probably mythical woman from history. As he realized all this, Hart is reported to have said, "Thunderation! Why didn't I think of this before?"

"Thunderation!" said Emil, smiting his forehead "Why didn't I think of this before?"

He referred not to his past mistakes, however, but to his successes yet to come. Borrowing the pen from Julius, who had just changed the peafowl to a chicken, Emil wrote in the margin the following:

Nonplussed, the stout-hearted inventor re-created his girl, Hazel Peid, from memory, adding her to his life story. After a brief courtship, they married. The plucky Hart went on to become healthy, wealthy and wise.

After a moment of thought, he added:

And nothing anyone writes here in the future will ever make it otherwise.

Then, giving Julius the last cookie, he departed.

She was there in his shop, the lovely Hazel Peid of the hazel hair and eyes—just as he remembered her. Going upon one knee, and tossing back his unruly lock, Emil said, "Miss Peid, will you be my wife?"

"Oh, yes!" she exclaimed, clapping her small, well-formed hands together.

"This calls for a celebration," said Mom, tottering in with a tray. "Won't you have some lemonade and cookies?"

Emil and his fiancée embraced, while above them, the rheumy eyes of Ben Franklin seemed to smile a blessing.

NOT SO certain

DAVID MASSON

THE SHM'QH, or Sshm-qh, or Sshmeqh (which sounds like "shmukh", only breathier) were getting more unsatisfactory every day. In private, Jacobs cursed them and the whole business of his mission. All had seemed auspicious at first. Here on this planet was an intelligent race with a learnable language, and all things considered, an almost pronounceable one. The labour of establishing communication had at last begun to bear fruit. Questions could be asked, co-operation could be sought, explanations could be given, propaganda could be made. The human interpreters with the expedition had mastered enough of the language to be able to express almost anything the administration demanded of them, and to follow most of what was said; eventually most of the crew could get along in varying degrees, and Jacobs became himself quite fluent. It was rather like conversing with moths in moth language: no vowels to speak of—except that now and again a surprising clatter of vowelage broke out among the Shm'qh themselves, no one knew why; a lot of feathery, sneezy consonants that no one could quite master. Yet the Shm'qh had tongues, mouths, even teeth (of sorts), a soft enfolding muscle that took the place of lips, and something that passed for a voice-box and lungs. It had proved possible to imitate their words near enough to make oneself understood, with occasional repetitions. The grammar was very unusual, but could be digested after practice. The absence of plurals, except in what passed for pronouns, was a stumbling-block, but one that could be got round.

The natives seemed friendly and surprisingly unalarmed by the human invaders, who were careful to avoid any behaviour that might have been construed as a sign of desire to dominate. They were not inconveniently curious. They had no machinery, but their intelligence was evidently high. They had everything in abundance on their planet: perhaps their intelligence

was insufficiently exercised. They were in some competition with the non-intelligent species, but not seriously menaced by disease, parasites, plant or animal predators, or starvation. They did not seem to be trying to conceal anything or deceive the humans. Yet their co-operation seemed to reach a reserve somewhere. There was a barrier, an evasion.

The interpreter of a team would ask "Can we return this way?" (*Tsh'ny lh'ly wh'ng 'zhny' bv'w w'gh'pf 'w*, literally "Pass shown reverse open eh? self-and-others relevance": it had been established conclusively that "open" was equivalent to "possible" and "shut" to "impossible", and the order of words in a sentence was now well understood.) The Shm'qh spoken to would answer with a sort of sneeze meaning "No" (*shny'wh*) and the party would go home the long way round. Weeks later it would be discovered that the track avoided, though difficult, was by no means impassable to either species; yet no evidence was ever unearthed of secret activity there which the Shm'qh might have wished to keep inviolate. A man fell down a gully once and when brought back, bones broken, developed a type of pneumonia which did not respond to drugs. "Will he live?" (*ny'p'lw gh'ghty bv'w 'pf'lh 'w*, literally "activity continuation eh? the-other relevance") produced a slow "*Shnyaawh*" which was taken to mean "No", since the rare vowels apparently meant nothing. The man recovered in a fortnight, after a crisis. Need the Shm'qh have been so brutally pessimistic? In the middle of a native feast two men passing humping an unwieldy generator were much annoyed to hear one of the two nearest natives say to the other, quite loudly and with amusement-posture slanted in their direction, "*Tylwhdyim ipf*", which means "Folly the-others" (that is, "They're crazy!"). The posture, the equivalent of a broad grin, involved the wide whipping of the tail, the rocking up and down

on out-bent elbows, and the spread of the ear-tufts, with the head turned towards them. Perhaps this was friendly gying, but *ty'why'dm* was an exceedingly offensive word, as Scatterthwaite had discovered to his cost when he had used it on a native who got too close to a high-tension coil. An abject ceremonial apology had had to be made by Scatterthwaite and Jacobs to the head official and the offended native, before all the tribe, to avert a complete withdrawal of all contact. All the crew were warned never to use the word again. That was three months before the feast incident.

FINALLY, when Jacobs asked if his mission might take back to Earth a few native ornaments, utensils, and cultivated plants (without mentioning the elaborate decontamination and quarantine that these, and the team, would have to undergo before release), he met with a flat No, delivered with the Shm'qh equivalent of an inscrutable smile, the tail switching gently, the ear-tufts slightly displayed, and the elbows spread out. Jacobs tried persuasion as eloquent as he could make it. All to no effect, except that "*Shny'wh*" turned to "*Shny'wh*" and finally to "*Shnyee'wh*", and the elbows spread wider and wider.

The doctor doubled as ethnologist because of his experience in physiographic measurements. He was unable to help. "Why don't you try Jimmy Anson? He's better on the psycho side than I am. I've a lot on my hands just now. I'm much more worried about our leucocyte counts than you are over your precious relics."

"Why's that?"

"Oh, no cause for immediate alarm. But they indicate we're adjusting to something, some foreign body or bodies; I don't suppose it's one so much as a whole host of different alien entities. It isn't doing us any real harm—but how would Earth react?"

Jacob sought out Anson, the linguist. "You have the advantage over us, old man; you can at least take back all those analyses and recordings. All we've got is photographs and film. I can't think why they're so down on letting us have specimens. I shall be darned unpopular with the powers at home. Never happened to me before."

The linguist had been added to the expedition almost as a late afterthought, together with a great deal of equipment which had caused some bad language among those who were working out loads and logistics. Pity by the interpreters at first, he was later regarded with envious tolerance as he took, with their only too necessary assistance, recording after recording, from cubs and adults of both sexes and all ages, often using thumbnail sketches to get his or their meaning across, or to keep the victims amused. He had a battery of results which seemed to keep him perfectly happy working on day after day, only now and again breaking surface to get the interpreters to arrange a new test interview. The Shm'qh let him torment them with palatograms, pharyngoscopes, torches and X-ray photo-

graphy, uncomplaining. Eventually he took to wandering in the settlements with a pocket recorder, sometimes sketching the vegetation to distract attention.

"Are they adamant about it then?"

"A flat refusal every time I ask—quite cheerful, but always no. I think we must have offended them more deeply over Scatterthwaite's gaffe than we realised. You know two of them threw it back at Simons and Harte the other day?"

"Really? I can't believe it! What were they doing?"

"Doing no harm, simply carrying the genny up to Blue Knoll the day the beano was on. Two Shmur" — Jacobs usually called the race that to his crew — "did the grin gesture at them and called out — you know — *Tchuffjim* or whatever it is."

"You mean *ty-why-dm*, I suppose?"

"That's it. Only they used the short-*i* vowel. Could there be anything in that? Does that take the sting out of it, do you think?"

A SLOW smile spread over Anson's face, then became a grin. "In a way, yes, but not the way you suppose. I think I have the answer to that problem."

"Do you indeed? Well let's have it, for God's sake, man. We might be on the edge of a volcano — they could be working up to attack us!"

"No, it's all right, I think. There's no malice and no guile in this race, as far as I can see. But first about that vowel. These vowels aren't phonemes in the strict sense —"

"What's a phoneme, for Heaven's sake?"

"Take too long to explain properly. But roughly speaking, it's a class of sound, like say *t* or *d* or short-*o*, recognised by a particular language, which makes a brick you can build meaningful words out of. Now these Sshm-qh vowels aren't like that at all. They're more like the intonation in an English sentence. They carry feeling-tones. If I say *Sshm-qh* by itself, with a sort of murmur-vowel — we'd call it *schwa* — in the middle, it means I am just mentioning the Sshm-qh without any special feeling. (By the way, if you can't use a phonetic *schwa*-symbol when you're writing the language, why not write an ordinary *e*, instead of that ambiguous apostrophe, or the hyphen?) Now, if I say *Sshmiqh* or *Sshmeeqh* (or in this case, probably *Sshmüqh*) with an *i*-type vowel, I'm amused, or specially cheerful. If I say *Sshmoogh* with that *u*-sound, it means I love them, or I'm feeling sentimental or something. If I say *Sshmahqh* with that *a*-sound, it means I'm angry, or frightened, or that some sort of emergency is on. If I say *Sshaugh* with that *o*-sound, it means I'm sad, or depressed, or awed about something."

"Would you use these vowels just for key words, or a whole sentence?"

"A whole sentence or a whole speech. They're supra-segmental phonemes in the American sense, really, they carry over the whole utterance. The Sshmeqh mouth

returns to the *i*-position, or the *a*-position, or whatever it is, whenever it gets the chance. In fact they're an unconscious reaction, more or less."

"Is that why their speech is so monotonous in tone?"

"Yes, you've got it. They've no function for pitch variation."

"So those two villains were amused at the idiocy of the men carrying a heavy genny?"

"Not necessarily. No, I don't think so. They were in a cheerful mood, or joking, but I don't think they were jibing at Simons and — was it Harte you said?"

"Yes. *They've* kept clear of the blighters ever since. Say they hate their guts."

"Quite unnecessary. I wish they'd called me in. You see, I don't think you quite realise the sound-structure of this language. How many different consonant sounds do you think there are?"

"Well, there's *b, d, f, g*, a sort of *gh*-sound, *j*, at least two kinds of *l*-sound, *m, n*, and I suppose linguists call *ng* another?, then there's *p, q*, a *qh*-sound, *sh, t, v*, at least one kind of *w*, a separate *wh*- or *hw*-sound, that ubiquitous *y*-sound, and a kind of *zh*-sound — or is that the same as *j*? That makes, say, 21?"

Anson sighed, just perceptibly. "Of distinguishable consonants there are at least 36; not that that's high for a language, that is considering there are no vowels properly speaking. And these consonants are not as haphazard as you seem to think."

"You mean, we may have got a consonant wrong in that *Tchuffjim* word — it may mean something else?"

"Just that — and a little bit more. Come and look at my charts." Anson rolled down a cylinder on a wall. Three columns of twelve symbols (six pairs) each, were printed on it in his clear hand.

"I can't follow these phoney — phoney — phonemes, do you call them?"

"No, these are not phonemic symbols. They are my shot at a structure of broad *phonetic* symbols in accordance with Sshmeq phonology; or rather according to *this* Sshmeq language: there are others further round the planet, I'm told, quite different, and what's more many of them are full of true vowels too. In fact I've been going to ask you if I could have a month away at the nearest language frontier — it's supposed to be the equivalent of only 2,500 kilometres south-south-east — and take a tape-machine. *That* one's a tone-language, moreover, like Chinese as it were. I could test whether the Sshmeq pictograms were interlingual too. I'd use one of the short-hop craft. I'd like to take one of the interpreters and a native friend of mine who knows the way and could help with the other language. We'd need some hot-climate clothing and so on. I would have to leave all the possible analyses till I got back. It should provide enough material to give the elements of a second language for any future expedition, eh?"

"What would you do about your stuff here? You'd be out of effective radio range, too."

"I'd leave it sealed and labelled, in case anything

happened to me, with all my notes. I could leave instructions what native to contact in case we never turned up again and you thought it worth sending a second machine with a search party."

"I think maybe we could manage it, if you set out within a week and come back within four weeks after that. That gives us a week or two's margin for search in case. Sound the interpreters and see who would best like to go with you . . . Well now, what do these columns of symbols stand for?"

"Thanks, Chief. Well, the left-hand column here is what with us would be labials — lip-sounds. Actually they use the orifice-mantle and outer teeth. There are *two* kinds of *p*-sound, two *b*'s, *no f* or *v* by itself at all, two *w*-sounds, two *wh*-like sounds above them *there*, two *m*'s, and two labial laterals (rather a strange bird linguistically)."

Jacobs snorted.

"Similarly with these palatals, or what with us would be palatalised gingivals and such. They use the inner rows of teeth and the tongue. There are two *ty*-like sounds, two *dy*-like sounds, two *sh*-like sounds, and so on, all corresponding to the "labial" examples in the first column. . . . Then on the right are the quasi-velar, quasi-uvular sounds—two *q*'s, two *qh*'s and so on. They use the retro-tongue for these, not the main tongue at all. . . . All these 36 are not counting collocational variants. What the retrolingual *l* does to a neighbouring orifice-*l*, for instance, is nobody's business."

Jacobs ground his teeth silently.

"Well, the word these two men thought was *tyewhdyem* (but I spell it with only four consonant symbols to your seven, and two *schwas*) was, I'm pretty certain, *tchewhdyemm*—look, I'll write it here, though I'd spell it professionally with only five consonants at most; and the first consonant, you see here, is a different one."

"And that means?"

"'Tough', 'brave', 'stout-hearted'; or 'courage', 'guts', if you like: that's what they were calling them, tough guys. The *i*-vowel and the grin posture, in so far as they were conscious at all, were complimentary, a slap on the back, I expect."

"My God! . . . How do the words come to be so much alike?"

"They're only alike to you because you aren't used to Sshmeq phonology. Also, we don't know for certain what really reaches their aural centres in their brains. Listen to this—" and he switched on a machine. It was saying over and over again, "*Tch-mb-, tch-mb-, tch-mb-. . .*"

"Now this."

"*Ty-mm-ny, ty-mm-ny, ty-mm-ny. . .*"

"Can't hear much difference except at the end."

"Wait. Listen to this. This is word number one."

DEPRESSING another switch, Anson produced from the machine something like a deep yawning tone

that sounded like "Ttthawmhwbah . . . ttthawmhwbah

"That's quarter-speed or so. Now the second word."

This time the machine produced "Ttrrhohmwwaw-hnn . . . ttrrhohmwwawhnn. . ."

"Yes, I begin to see. You think that's what they really hear?"

"Who's to say? We can't dissect them, and even if we could! And as they have no true writing, only a kind of pictography, there are no graphic clues. All I'm saying is, there is a difference which quartering the speed brings out, and maybe their auditory chain can pick up this difference easier than ours can. Now I have another surprise for you. These 36 consonants aren't true phonemes. There are only about 18 phonemes. A pretty meagre equipment by human standards, particularly as there aren't any true vowels, but quite adequate to furnish a language. Anyway, about half of the 36 consonants are the manifestations, I'm pretty sure, of combinations of phonemes. You know how some men'll say 'Canh say' instead of 'Can't say'. Well, that voiceless *n* at the end of 'Canh' may be regarded as a combination, in their speech, of an *n*-phoneme and a *t*-phoneme. Same here, only all over. Look, here's my battery of phonemes."

Anson unrolled another chart in which the three columns now contained six symbols each.

"I won't bother you with details, but that sound *tch*, for instance, in the word meaning 'brave', is a compound of two *ty*-phonemes. I have a suspicion that in that particular case the first *ty* comes from a word *ety* meaning 'very', which you can hear quite a lot of. And the long *m*-sound at the end is undoubtedly two *m*'s, only I haven't disentangled their meanings. One of the two *b*-sounds in the language is really a combination of *p* and *b*, and so with all the other pairs of voiced stops and fricatives."

Jacobs groaned softly. "I'd give a lot to be dealing with Earth!"

"Oh, I could show you far worse things in a lot of human languages. This lot is child's play. Now, I have another little surprise. You say you're always meeting a No, especially when you ask if you can take some specimens home—right?"

"I only I could crack that! it's wrecking all my programme!"

Anson regarded his chief with a calm but guarded gaze, like an experienced mother considering a fractious child.

"You think there's one word *shnyewh*, don't you? and so, I'm afraid do the interpreters; they're very helpful, but they can't know everything. But there isn't one word: there are two. Neither of them starts with the same sound as the word *Sshmeqh*, by the way—that's another compound, a double *sh*-sound. Both of them begin with a simple *sh*. Listen to this."

AFTER some fiddling, Anson got his machine intoning "*Shny-wh, shny-wh, shny-wh. . .*"

"That's the word I got whenever I pitched my informants a question I knew had a negative answer. Now listen to this; this was a response I got when I asked certain carefully chosen questions."

Again a repeated "*Shny-wh, shny-wh, shny-wh. . .*"

"There is a difference somewhere."

"Well, try the slow speed. Here's number one."

Jacobs heard "Thkhnnnauhhwh . . . thkhnnnauhhwh . . ."

"Now number two." "Thkhnnnohfgh . . . thkhnnnohfgh. . ."

"The vowel sounds different!"

"Only because of the influence of the final consonant. In the first word it was *that* one, the second symbol of the second pair on my first chart; in the second word it was the *first* of the second pair. If you can't stomach my symbols, you could write the end of the second word with *ph* instead of *wh*. It's tenser, tighter, if you like. But let's try the sound-spectrograph."

Anson switched on a small illuminated screen, on which he presently conjured up two versions of a figure resembling an out-of-focus black-and-white photograph, marred by movement, of the ruins of a rope-bridge in a dense jungle gorge, during a thick fog.

"Now here's your No-word, *shnyewh*. Left to right is time. Upwards for higher pitch. Compare the other word, alongside, *shnyeph*. This time we get this odd transient up there near the end (which you never get in our own attempts—maybe something to do with the tensing of the mantle round the outer teeth) and the second pseudo-formant" (pointing to a sagging strand of the rope-bridge) "drops quite a bit, compared to its level in your first word, here. . . Now here instead are my synthetic versions. They are the minimal freehand drawings that I could get a 95 per cent 'correct' response to when I played them back as sound to natives. They are, if you like, the skeleton, the basic structure; all the rest are adventitious trimmings."

Anson lit up a chastely futuristic piece of abstract art in which the rope-bridge and jungle had been replaced by smooth blips and snakes, and the fog had gone. Then he "played" it back. It was recognisable, if rather clipped and twangy, as the two original sneezes. The second came to a perceptibly harder end.

"Now, this *ph*-sound turns out to be a compound of two *wh*-phonemes. I happen to have succeeded in dissecting these two words, so to speak. The first, which means, roughly, 'No', is a kind of agglutination of *esh*, which means 'indeed', 'in fact', or something like that; *nye*, which means 'not', or 'negative'; and *ewh*, which means 'thus', or 'so', or 'in that way'. So their 'No' means, etymologically, 'Indeed not so'."

"Indeed not so! What about the second word, for Heaven's sake!"

A GAIN that considering gaze.
"Well, the second word is *esh* plus *nye* plus *ewh*
Continued on Page 49

Expressing the Abstract

A review of the work of M. C. Escher by Charles Platt



SPECULATIVE FICTION has in the last five years become a form involving greater abstraction of idea and vision. Consequently, art concerned principally with the visual interpretation of such subtleties is particularly relevant to the form. M. C. Escher, the Dutch graphic artist whose work illustrates this issue's front cover, is an excellent example of a man wholly concerned with the expression of abstract—often even mathematical—ideas.

Escher was born in 1898; since the 1930s he has devoted his talents to mastering completely the process of clearly expressing ideas which are wholly abstract. His pictures use mathematics, geometry and visual paradox for subject matter; and yet somehow they escape the detachment and sterility of these fields.

The mathematical content of his art is one of its most obvious aspects; in some cases pictures are devoted to illustrating a single idea. Figure 1, for example ("Moebius Strip 1") illustrates graphically the properties of this surface. That the strip only has one side becomes obvious from the fact that the ants are crawling nose-to-tail in one unbroken chain.

The Moebius strip theme is used in several other prints, each with a fresh, distinctive interpretation of the one-sided property.

Figures 2 and 3 are examples of tessellation, an art-form of which Escher writes: "This is the richest source of inspiration that I have struck, nor has it yet dried up."

Tessellation is the systematic division of an area into identical pieces whose outlines interlock perfectly when repeated, reversed or inverted. In simple designs, this art has been used for architectural decoration; examples in the Alhambra show that the Spanish Moors were highly skilled in it, though all their patterns were abstract, the representation of living creatures being prohibited by Mohammedanism. By contrast, Escher is concerned solely with evolving shapes of birds, fish, reptiles and other animals to fit in his tessellations.

The perfection of a tessellated pattern is in some ways similar to solving a complex algebraic equation. It is a self-imposed, obsessive task, carried out within set rules, undertaken solely for its own sake.

Having perfected a tessellation, Escher incorporates

figure 1



figure 2



figure 3

it in a finished picture. Figure 4, "Reptiles", illustrates his close involvement with his work, an involvement that is almost inevitable stemming from such single-minded dedication to a laborious task. Escher writes: "While drawing I sometimes feel as if I were a spiritualist medium controlled by the creatures I am conjuring up. It is as if they themselves decide on the shape in which they choose to appear. . . ."

In this lithograph, almost as if by wish fulfilment, one of his creatures comes to life. "Evidently one of them has tired of lying flat and rigid amongst his fellows, so he puts one plastic-looking leg over the edge of the (drawing) book, wrenches himself free and launches out into real life. He climbs up the back of a book on zoology and works his laborious way up the slippery slope of a set square to the highest point of his existence. Then, after a quick snort, tired but fulfilled, he . . . meekly rejoins his erstwhile friends, taking up once more his function as an element of surface division."

This description is very reminiscent of the serious man at play, pursuing a private whim or fantasy. Escher's emotional sympathy towards the creatures he has laboriously created is also remarkable; his involvement is like that of a numerologist so involved with figures that individual numbers seem to take their own distinctive personalities.

Figure 5, "Liberation", is another example of tessellated creatures freeing themselves from their paper domain. But it illustrates, in addition, Escher's feelings for visual paradox. Which are "real"—the birds on the paper strip, or the birds flying? Where, and how, does the transition occur? What happens to the roll of paper which the birds were drawn on?

This kind of paradox is developed much further. In another series of drawings (not involving tessellations), Escher questions the artist's assumption that it is logical to assume a piece of paper is flat, and to decorate it with lines, giving an illusion of depth. By violating these traditions, an unsettling real/unreal effect is created.

For instance, "Dragon", in figure 6. Escher writes: "However much this dragon tries to be spatial, he remains completely flat. Two incisions are made in the paper on which he is printed. Then it is folded in such a way as to leave two square openings. But this dragon is an obstinate beast, and in spite of his two dimensions he persists in assuming that he has three; so he sticks his head through one of the holes and his tail through the other."

Thus the picture is *of* a picture, which has been cut and folded in the manner described. But are the head and tail of the dragon any more "real" than the "two dimensional" remainder, folded to occupy three dimensions? It is a subtle, graphic demonstration that all two-dimensional representations of three-dimensional objects are fundamentally unreal.

Again, Escher writes almost affectionately about the dragon he has drawn. He treats it with casual famili-



figure 4

arity, as if it were an every-day specimen from some standard textbook. Either he has grown used to the power of his imagery, or he is too close to it to see how bizarre this dragon is, as it stands frozen like a myth creature dredged from deep recesses of a haunted mind.

His matter-of-fact attitude towards the imagery he uses to dramatise his ideas is also shown towards "Three Worlds", a lithograph reproduced in Figure 7. The subject is three intersecting realities: a lake, defined by the floating leaves; three trees, reflected; and a giant, brooding fish, staring malevolently up through the barrier of the water's surface, unsettlingly like a blurred nightmare image swimming trapped below the

level of consciousness. Escher, in a brief, factual description of this picture, mentions it only in passing.

His most recent lithographs explore visual paradox and perspective tricks, one of which (a picture of men descending an unending staircase) achieved superficial recognition as an "optical illusion" in a colour supplement Christmas feature.

But Escher's ideas go far deeper than this. "High and Low", in Figure 8, uses the fact that perspective applies as much to vertical parallel lines as to horizontals; both appear to curve away from the onlooker, converging as they do so. A camera will illustrate this effect, whereas artists have traditionally compensated for it. It is used by Escher for a visual trick enabling



figure 6

him to show two different views of the same building in one picture. The top half of Figure 8 shows the scene observed from several storeys up; the bottom half depicts the same scene from ground level. The tiled area in the picture's centre serves as either floor or ceiling; the perspective vanishing point is situated variously on the horizon, at the zenith and at the nadir, depending on whether one observes the bottom, middle or top of the picture.

The lithograph illustrating our front cover this issue is titled "Relativity"; it depicts, in effect, the cohabitation of people from three different universes, each experiencing gravity at a direction at right angles to the other two. Escher writes: "It is impossible for the inhabitants of (the three) different worlds to walk, sit or stand on the same floor, because they have differing conceptions of what is horizontal and what is vertical. Yet they may well share the use of the same staircase. On the top staircase illustrated here, two people are moving side by side and in the same direction, and yet one of them is going downstairs and the other upstairs. Contact between them is out of the question, because they live in different worlds and therefore can have no knowledge of each other's existence."

Within the reality system of the picture, this makes



figure 5



figure 7

a strange kind of logic. Without the picture, it would mean nothing. Thus Escher has conveyed visually an idea inexpressible in words alone.

Moreover, the picture is no mere mathematical model. It has an atmosphere of its own. One becomes fascinated by the figures walking mindlessly through unending labyrinths of visual paradox, enacting ritual tasks, blind to the glaring impossibilities of their environment. They climb and descend staircases, pause for refreshment and continue like clockwork marionettes in a strange, other-universe architectural model of unfeasibility.

Other pictures by Escher share this feeling for imagery—a feeling he largely ignores when writing about his work. Lizards crawl hungrily from the tessellated centre of a blurred chessboard; a giant praying locust crouches parasitically on the chest of a sleeping bishop; winged feline creatures emerge from the plane surface of a mirror and circle round in rigid formation to meet their mirror images, intermingling and sinking into the table top to form a frozen tessellation; great reptiles, teeth bared, stare malevolently out from the barred confines of a geometrical figure suspended in



timeless black space; flatwatms swim placidly through water-filled chambers built from tetrahedron-shaped bricks.

Escher distils the essence of an abstract vision; he populates a half-real, meticulously detailed scene with creatures illustrating its properties; and he presents the finished picture as a homogeneous whole, lacking neither subtlety nor power in its graphically simple representation of the original idea.

He is strongly aware of this process. "After a long series of attempts . . . I manage to cast my lovely dream in the defective visual mould of a detailed conceptual sketch. . . . Yet a mental image is something completely different from a visual image, and however

hard one exerts oneself, one can never manage to capture the fullness of that perfection."

An author may encounter the same problems, searching for scenery on completely new means of expression to convey the complex qualities of a mental image. It is this similarity of aim which links the mood of Escher's drawings with that of the most imaginative speculative fiction.

The assistance of Mr. Escher's Dutch publishers, Messrs. Koninklijke Uitgeverij J. J. Tilt N.V., Zwolle, is gratefully acknowledged. The reproductions in this article were taken from their book *M.C. Escher, Grafiek en Tekeningen*, which will shortly be published in English by The Oldbourne Press, to whom we are also indebted for their help in preparing this article. Reference was made to Martin Gardner's article on M. C. Escher in SCIENTIFIC AMERICAN.

Not so certain continued from page 43

all over again, plus another *wh* which comes, I'm virtually certain (but it'd take months to prove) from *wh*."

"And what the hell does *whuh* mean?" snarled Jacobs.

"*Wh* means 'definitely', 'certainly', or 'definite', 'certain', 'known', or 'certainty'. They use it to indicate the exact spot on a plant or a picture, the known place of an event, an agreed shade of colour—their colours, that is, not the ones we distinguish."

"And what the—for God's sake cut the cackle and tell me what all that means!"

"In literal order, it means: 'Indeed not so certain'; or, as we might say, 'Indeed not definitely or certainly so'."

"Indeed not so certain"—what does *that* mean?"

"It's *their* equivalent of our word 'Perhaps'."

"Perhaps': then all they've done is refuse to make their minds up about the specimens. And my God, that ravine that wasn't supposed to be crossable—they only meant *perhaps* it was crossable?"

"Very likely."

"And poor old Jackson: they only meant *perhaps* he'd survive?"

"Yes, I should imagine so. I ought to have cottoned on to that myself—I heard about it."

"My God, you should. Maybe I ought to have thought sooner about asking you, but you could have thought about *our* practical problems, too, Jimmy. . . . By the way, surely when two words are so alike one of them is going to drop out sooner or later. I mean, it could be risky even to a Shmur?"

"Remember we don't know how their aural set-up works. Or even their syntactical consciousness. Their grammar must bring about some queer verbal thinking. You know, so far I can only distinguish two classes of word, Dependants and Independants, and two functions. Absolute and Modifier; the Independants can act as Absolutes, but need not do so. . . . But still, there is something in what you say. It could solve itself by

an extra consonant creeping into the *perhaps* word through the shoving on of yet another Modifier. But as a matter of fact it wouldn't surprise me if the *perhaps* word were to die out presently in favour of some other less ambiguous expression. Language never stays still. They have produced such an expression in my hearing which may gain ground, although at the moment it has a rather contemptuous overtone. It's '*bheng elyeny*', or *phonemically*' (he wrote on the pad) "*you might write it 'wweng elyeny*', which of course means 'chance equal'."

"So they can't make up their minds whether to let us have specimens or not. How am I going to persuade them to say Yes? It's vital to our programme to get at least some artefacts back, and the geneticists and so on will want to take the cell-structure of crop specimens apart."

"No, I think there's something else here. Don't tell me, let me guess. . . . I don't think the interpreters would have slipped up on this one, but you were going it alone, weren't you?"

"Yes, I was."

"Well . . . what those fellows may have *thought* you were asking was, I suggest, whether you could, physically, succeed in getting their specimens safely from here to Earth. The syntax is a bit tricky, but you should have requested permission—'*ghedyep gep*', if you like—instead of enquiring about possibility—'*ezhnye bwew*'. So, if I'm right, they thought you thought they might know how tough these specimens'd be. And naturally they said 'perhaps'. Am I right?"

"My God, I believe you are! All they meant was, they didn't know whether the things would survive the journey! I'll start begging specimens off them right away. . . . Well, Jimmy, I'll give you a dinner at Savoni's for that, when we get back to Earth; after we get out of quarantine, that is."

"Do you think" (Anson dropped his voice) "they'll ever let us out of quarantine, Chief?"

"Indeed . . . not . . . so certain."

The Soft World Sequence

By George MacBeth

the sea

Through the glass floor,
from below,
he could see the girl
in the glass typing-chair,

in the glass skirt,
crossing her flesh legs
over the glass eye
in her groin. Glassily, it stared

at his own eye, and slowly,
the world of glass,
opening, closing,
became soft,

like the lips of an octopus
with eight legs
opening, closing,
in the Indian Ocean.

the clouds

The man had been a bit
slow on the uptake, but
when his elbows went through
the light oak,

he saw the point. After his leg, too,
had sunk in
and was shivering
in the middle of the carbon-paper drawer, they began

to realise just how far
it had gone. Not even
the one in the telephone
bothered about the screaming then,

though it did make a hell
of a noise. It was how
to profit from it that occupied
all their minds. After so long

without anyone wondering
how they felt about it all,
none of them was accustomed
to making much of an impact. So

even the one in the floor
let him run his legs through
for a while without
worrying. Of course,

the man did wade in diminishing
circles, evidently
grasping (albeit rather slowly)
just how soft the whole

thing had become. It took him
several minutes, though,
to appreciate the full reason
for the watery coolness.

When he did,
there was more noise. The one in the PAX phone
got quite a headache
in its ear-piece.

Elsewhere I doubt
if they had so much trouble. Just
a fluffy moistness
easing in where

the old edges had been. And then
the slow, steady,
drumming, pita-pata
sound, as the rain started.

the earth

Well, it was all, really,
a palpable jelly,
touchable, glaucous,
very good to eat

in its own way, if you liked
that sort of thing. I mean before
the day of the cucumbers.
After that, the hard edges

all became round heads,
and there wasn't much
you could do about it.
Not without risking

a hell of a row,
and maybe getting cut,
or swallowed up
in the ice. Let well alone,

I always say.
Take what comes.
You can't win them all. Not
without being one of them yourself.



In The House Of The Dead

By Roger Zelazny

THE MAN WALKS through his Thousandyear Eve in the House of the Dead. If you could look about the enormous rooms through which he walks, you couldn't see a thing. It is far too dark for eyes to be of value.

For this dark time, we'll simply refer to him as "the man".

There are two reasons for doing so:

First, he fits the general and generally accepted description of an unmodified, male, human model being—walking upright, having opposing thumbs and possessing the other typical characteristics of the profession—and second, because his name has been taken from him.

There is no reason to be more specific at this point.

In his right hand, the man bears the staff of his Master, and it guides him through the dark. It tugs him this way, that way. It burns his hand, his fingers, his opposing thumb if his foot strays a step from its ordained path.

When the man reaches a certain place within the darkness, he mounts seven steps to a stone dais and raps three times upon it with the staff.

Then there is light, dim and orange and crowded into corners. It shows the edges of the enormous, unfilled room.

He reverses the staff and screws it into a socket in the stone.

Had you ears in that room, you would hear a sound as of winged insects circling near you, withdrawing, returning.

Only the man hears it, though. There are over two

thousand and other people present, but they are all of them dead.

They come up out of the transparent rectangles which now appear in the floor, come up unbreathing, unblinking and horizontal, and they rest upon invisible catafalques at a height of two feet, and their garments and their skins are of all colours and their bodies of all ages. Now some have wings and some have tails, and some have horns and some long talons. Some have all of these things, and some have pieces of machinery built into them and some do not. Many others look like the man, unmodified.

The man wears yellow breeches and a sleeveless shirt of the same colour. His belt and cloak are black. He stands beside his Master's gleaming staff and he regards the dead beneath him.

"Get up!" he calls out. "All of you!"

And his words mix with the humming that is in the air and are repeated over and over and again, not like an echo, fading, but persistent and recurring, with the force of an electric alarm.

The air is filled and stirred. There comes a moaning and a creaking of brittle joints, then movement.

Rustling, clicking, chafing, they sit up, they stand up.

Then sound and movement cease, and the dead stand like unlit candles beside their opened graves.

The man climbs down from the dais, stands a moment before it, then says, "Follow me!" and he walks back the way he came, leaving his Master's staff vibrating in the grey air.

As he walks, he comes to a woman who is tall and golden and a suicide: He stares into her unseeing eyes and says, "Do you know me?" and the orange lips, the dead lips, the dry lips move, and they whisper, "No", but he stares longer and says, "Did you know me?" and the air hums with his words, until she says, "No", once again, and he passes her by.

He questions two others: a man who had been ancient of days, with a clock built into his left wrist, and a black dwarf with horns and hooves and the tail of a goat. But both say, "No", and they fall into step behind him, and they follow him out of that enormous room and into another, where more lie under stone, not really waiting, to be called forth for his Thousandyear Eve in the House of the Dead.

THE MAN LEADS them. He leads the dead whom he has summoned back to movement, and they follow him. They follow him through corridors and galleries and halls, and up wide, straight stairways and down narrow, winding stairways, and they come at last into the great Hall of the House of the Dead, where his Master holds his court.

He sits on a black throne of polished stone, and there are metal bowls of fire to his right and to his left. On each of the two hundred pillars that line his high Hall, a torch blazes and flickers and its spark-shot smoke coils and puffs upward, becoming at last a grey part of

the flowing cloud that covers the ceiling completely.

He does not move, but he regards the man as he advances across the Hall, five thousand of the dead at his back, and his eyes lie red upon him as he comes forward.

The man prostrates himself at his feet, and he does not move until he is addressed:

"You may greet me and rise," come the words, each of them a sharp, throaty stab in the midst of an audible exhalation.

"Hail, Anubis! Master of the House of the Dead!" says the man, and he stands.

Anubis lowers his black muzzle slightly and his fangs are white within it. Red lightning, his tongue, forks forward, re-enters his mouth. He stands then, and the shadows slide downward upon his bare and manformed body.

He raises his left hand and the humming sound comes into the Hall, and it carries his words through the flickering light and the smoke:

"You who are dead," he says, "tonight you will disport yourselves for my pleasure. Food and wine will pass between your dead lips, though you will not taste it. Your dead stomachs will hold it within you, while your dead feet take the measure of a dance. Your dead mouths will speak words that will have no meaning to you, and you will embrace one another without pleasure. You will sing for me if I wish it. You will lie down again when I will it."

He raises his right hand.

"Let the revelry begin," he says, and he claps his hands together.

Then tables slide forward from between the pillars, laden with food and with drink, and there is music upon the air.

The dead move to obey him.

"You may join them," Anubis says to the man, and he reseats himself upon his throne.

The man crosses to the nearest table and eats lightly and drinks a glass of wine. The dead dance about him, but he does not dance with them. They makes noises which are words without meaning, and he does not listen to them. He pours a second glass of wine and the eyes of Anubis are upon him as he drinks it. He pours a third glass and he holds it in his hands and sips at it and stares into it.

How much time has passed he cannot tell, when Anubis says, "Servant!"

He stands, turns.

"Approach!" says Anubis, and he does so.

"You may rise. You know what night tonight is?"

"Yes, Master. It is Thousandyear Eve."

"It is *your* Thousandyear Eve. This night we celebrate an anniversary. You have served me for a full thousand years in the House of the Dead. Are you glad?"

"Yes, Master."

"You recall my promise?"

"Yes. You told me that if I served you faithfully for a thousand years, then you would give me back my name. You would tell me who I had been in the Middle Worlds of Life."

"I beg your pardon, but I did not."

"You . . . ?"

"I told you that I would give you a name, which is a different thing altogether."

"But I thought . . ."

"I do not care what you thought. Do you want a name?"

"Yes, Master . . ."

" . . . But you would prefer your old one? Is that what you are trying to say?"

"Yes."

"Do you really think that anyone would remember your name after ten centuries? Do you think that you were so important in the Middle Worlds that someone would have noted down your name, that it would have mattered to anyone?"

"I do not know."

"But you want it back?"

"If I may have it, Master."

"Why? Why do you want it?"

"Because I remember nothing of the Worlds of Life. I would like to know who I was when I dwelled there."

"Why? For what purpose?"

"I cannot answer you because I do not know."

"Of all the dead," says Anubis, "you know that I have brought only you back to full consciousness to serve me here. Do you feel this means that perhaps there is something special about you?"

"I have often wondered why you did as you did."

"Then let me give you ease, man: You are nothing. You were nothing. You are not remembered. Your mortal name does not signify anything."

The man lowers his eyes.

"Do you doubt me?"

"No, Master . . ."

"Why not?"

"Because you do not lie."

"Then let me show it. I took away your memories of life only because they would give you pain among the dead. But now let me demonstrate your anonymity. There are over five thousand of the dead in this room, from many ages and places."

Anubis stands, and his voice carries to every presence in the Hall:

"Attend me, maggots! Turn your eyes toward this man who stands before my throne! —Face them, man!"

The man turns about.

"Man, know that today you do not wear the body you slept in last night. You look now as you did a thousand years ago, when you came into the House of the Dead."

"My dead ones, are there any of you here present who can look upon this man and say that you know him?"

A GOLDEN girl steps forward.

"I know this man," she says, through orange lips, "because he spoke to me in the other hall."

"That I know," says Anubis, "but who is he?"

"He is the one who spoke to me."

"That is no answer. Go and copulate with yon purple lizard. —And what of you, old man?"

"He spoke to me also."

"That I know. Can you name him?"

"I cannot."

"Then go dance on yonder table and pour wine over your head. —What of you, black man?"

"This man also spoke with me."

"Do you know his name?"

"I did not know it when he asked me—"

"Then burn!" cries Anubis, and fires fall down from the ceiling and leap out from the walls and crisp the black man to ashes, which move then in slow eddies across the floor, passing among the ankles of the stopped dancers, falling finally into final dust.

"You see?" says Anubis. "There is none to name you as once you were known."

"I see," says the man, "but the last might have had further words—"

"To waste! You are unknown and unwanted, save by me. This, because you are fairly adept at the various embalming arts and you occasionally compose a clever epitaph."

"Thank you, Master."

"What good would a name and memories do you here?"

"None, I suppose."

"Yet you wish a name, so I shall give you one. Draw your dagger."

The man draws the blade which hangs at his left side.

"Now cut off your thumb."

"Which thumb, Master?"

"The left one will do."

The man bites his lower lip and tightens his eyes as he drags the blade against the joint of his thumb. His blood falls upon the floor. It runs along the blade of the knife and trickles from its point. He drops to his knees and continues to cut, tears streaming down his cheeks and falling to mingle with the blood. His breath comes in gasps and a single sob escapes him.

Then, "It is done," he says. "Here!" He drops the blade and offers Anubis his thumb.

"I don't want the thing! Throw it into the flames!"

With his right hand, the man throws his thumb into the brazier. It splutters, sizzles, flares.

"Now cup your left hand and collect the blood within it."

The man does this thing.

"Now raise it above your head and let it drip down upon you."

He raises his hand and the blood falls on to his forehead.

"Now repeat after me: 'I baptize me . . .'"

"I baptize me . . ."

"Wakim, of the House of the Dead . . ."

"Wakim, of the House of the Dead . . ."

"In the name of Anubis . . ."

"In the name of Anubis . . ."

"Wakim . . ."

"Wakim . . ."

"Emissary of Anubis in the Middle Worlds . . ."

"Emissary of Anubis in the Middle Worlds . . ."

"... and beyond."

"... and beyond."

"Hear me now, oh you dead ones: I proclaim this man Wakim. Repeat his name!"

"Wakim," comes the word, through dead lips.

"So be it! You are named now, Wakim," he says. "It is fitting, therefore, that you feel your birth into namehood, that you come away changed by this thing, oh my named one!"

Anubis raises both hands above his head and lowers them to his sides.

"Resume dancing!" he commands the dead.

They move to the music once more.

The body-cutting machine rolls into the hall, and the prosthetic replacement machine follows it.

Wakim looks away from them, but they draw up beside him and stop.

The first machine extrudes restrainers and holds him.

"Human arms are weak," says Anubis. "Let these be removed."

The man screams as the sawblades hum. Then he passes out. The dead continue their dance.

WHEN WAKIM awakens, two seamless, silver arms hang at his sides, cold and insensitive. He flexes the fingers.

"And human legs be slow, and capable of fatigue. Let those he wears be exchanged for tireless metal."

When Wakim awakens the second time, he stands upon silver pillars. He wiggles his toes. Anubis' tongue darts forth.

"Place your right hand into the flames," he says, "and hold it there until it glows white."

The music falls around him, and the flames caress his hand until it matches their red. The dead talk their dead talk and drink the wine they do not taste. They embrace one another without pleasure. The hand glows white.

"Now," says Anubis, "seize your manhood in your right hand and burn it away."

Wakim licks his lips.

"Master . . ." he says.

"Do it!"

He does this thing, and he falls to unconsciousness before he has finished.

When he awakens again and looks down upon himself, he is all of gleaming silver, sexless and strong. When he touches his forehead, there comes the sound of metal upon metal.

"How do you feel, Wakim?" asks Anubis.

"I do not know," he answers, and his voice comes strange and harsh.

Anubis gestures, and the nearest side of the cutting machine becomes a reflecting surface.

"Regard yourself."

Wakim stares at the shining egg that is his head, at the yellow lenses, his eyes, the gleaming barrel, his chest.

"Men may begin and end in many ways," says Anubis. "Some may start as machines and gain their humanity slowly. Others may end as such, losing it by pieces as they live. That which is lost may always be regained. That which is gained may always be lost. —What are you, Wakim, a man or a machine?"

"I do not know."

"Then let me confuse you further."

Anubis gestures, and Wakim's arms and legs come loose, fall away. His metal torso clangs against stone, rolls, then lies at the foot of the throne.

"Now you lack mobility," says Anubis.

He reaches forward with his foot and touches a tiny switch at the back of Wakim's head.

"Now you lack all senses but hearing."

"Yes," answers Wakim.

"Now a connection is being attached to you. You feel nothing, but your head is opened and you are about to become a part of the machine which monitors and maintains this entire world. See it all now!"

"I do," he replies, as he becomes conscious of every room, corridor, hall and chamber in the always dead never alive world that has never been a world, a world made, not begotten of coalesced starstuff and the fires of creation, but hammered and jointed, riveted and fused, insulated and decorated, not into seas and land and air and life, but oils and metals and stone and walls of energy, all hung together within the icy void where no sun shines; and he is aware of distances, stresses, weights, materials, pressures and the secret numbers of the dead. He is not aware of his body, mechanical and disconnected. He knows only the waves of maintenance movement that flow through the House of the Dead. He flows with them and he knows the colourless colours of quantity perception.

Then Anubis speaks again:

"You know every shadow in the House of the Dead. You have looked through all the hidden eyes."

"Yes."

"Now see what lies beyond."

There are stars, stars, scattered stars, blackness all between. They ripple and fold and bend, and they rush toward him, rush by him. Their colours are blazing and pure as angels' eyes, and they pass near, pass far, in the eternity through which he seems to move. There is no sense of real time or real movement, only a changing of the field. A great blue Tophet Box of a sun seems to soar beside him for a moment, and then again comes black, all about him, and more small lights that pass, distantly.

And he comes at last to a world that is not a world, citrine and azure and green, green, green. A green corona hangs about it, at thrice its own diameter, and it seems to pulsate with a pleasant rhythm.

"Behold the House of Life," says Anubis, from somewhere.

And he does. It is warm and glowing and alive. He has a feeling of aliveness.

"Osiris rules the House of Life," says Anubis.

And he beholds a great bird-head atop human shoulders, bright yellow eyes within it, alive, alive-o; and the creature stands before him on an endless plain of living green which is superimposed upon his view of the world, and he holds the Staff of Life in his one hand and the Book of Life in his other. He seems to be the source of the radiant warmth.

Wakim then hears the voice of Anubis once again:

"The House of Life and the House of the Dead contain the Middle Worlds."

AND THERE is a falling, swirling sensation, and Wakim looks upon stars once more, but stars separated and held from other stars by bonds of force that are visible then invisible, then visible again, fading, coming, going, white, glowing lines, fluctuating.

"You now perceive the Middle Worlds of Life," says Anubis.

And dozens of worlds roll before him like balls of exotic marble, stippled, polished, incandescent.

"... Contained," says Anubis. "They are contained within the field which arcs between the only two poles that matter."

"Poles?" says the metal head that is Wakim.

"The House of Life and the House of the Dead. The Middle Worlds about their suns do move, and all together go on the paths of Life and Death."

"I do not understand," says Wakim.

"Of course you do not understand. What is at the same time the greatest blessing and the greatest curse in the universe?"

"I do not know."

"Life," says Anubis, "or death."

"I do not understand," says Wakim. "You used the superlative. You called for one answer. You named two things, however."

"Did I?" asks Anubis. "Really? Just because I used two words, does it mean that I have named two separate and distinct things. May a thing not have more than one name?" Take yourself for an example. What are you?"

"I do not know."

"That may be the beginning of wisdom, then. You could as easily be a machine which I chose to incarnate as a man for a time and have now returned to a metal casing, as you could be a man whom I have chosen to incarnate as a machine."

"Then what difference does it make?"

"None. None whatsoever. But you cannot make the distinction. You cannot remember. Tell me, are you

alive?"

"Yes."

"Why?"

"I think. I hear your voice. I have memories. I can speak."

"Which of these qualities is life? Remember that you do not breathe, your nervous system is a mass of metallic strands and I have burnt your heart. Remember, too, that I have machines that can outreason you, outremember you, out-talk you. What does that leave you with as an excuse for being alive? You say that you hear my voice, and 'hearing' is a subjective phenomenon? Very well. I shall disconnect your hearing also. Watch closely to see whether you cease to exist."

... One snowflake drifting down a well, a well without waters, without walls, without bottom, without top. Now take away the snowflake and consider the drifting. . . .

After a timeless time, Anubis' voice comes once again:

"Do you know the difference between life and death?"

"I am life," says Wakim. "Whatever you give or take away, if 'I' remain it is life."

"Sleep," says Anubis, and there is nothing to hear him, there in the House of the Dead.

WHEN WAKIM AWAKENS, he finds that he has been set upon a table near to the throne, and he can see once more, and he regards the dance of the dead and he hears the music to which they move.

"Were you dead?" asks Anubis.

"No," says Wakim. "I was sleeping."

"What is the difference?"

"I was still there, although I did not know it."

Anubis laughs.

"Supposing I had never awakened you?"

"That, I suppose, would be death."

"Death? If I did not choose to exercise my power to awaken you? Even though the power was ever present, and 'you' potential and available for that same ever?"

"If this thing were not done, if I remained forever only potential, then this would be death."

"A moment ago you said that sleep and death were two different things. Is it that the period of time involved makes a difference?"

"No," says Wakim, "it is a matter of existence. After sleep there comes wakefulness, and the life is still present. When I exist, I know it. When I do not, I know nothing."

"Life then, is nothing?"

"No."

"Life then, is existing? Like these dead?"

"No," says Wakim. "It is knowing you exist, at least some of the time."

"Of what is this a process?"

"I," says Wakim.

"And what is 'I'? Who are you?"

"I am Wakim."

"I only named you a short while ago! What were you before that?"

"Not Wakim."

"Dead?"

"No! Alive!" cries Wakim.

"Do not raise your voice within my halls," says Anubis. "You do not know what you are or who you are, you do not know the difference between existing and not existing, yet you presume to argue with me concerning life and death! Now I shall not ask you, I shall tell you. I shall tell you of life and of death."

"There is too much life and there is not enough life," he begins, "and the same goes for death. Now I shall throw away paradoxes."

"The House of Life lies so far from here that a ray of light which left it on the day you entered this domain would not yet have travelled a significant fraction of the distance which separates us. Between us lies the Middle Worlds. They move within the Life-Death tides that flow between my House and the House of Osiris. When I say 'flow' I do not mean that they move like that pitiful ray of light, crawling. Rather, they move like waves on the ocean which has but two shores. We may raise waves anywhere we wish without disrupting the entire sea. What are these waves, and what do they do?"

"Some worlds have too much life," he says. "Life—crawling, pululating, fecunding, smothering itself—worlds too clement, too full of the sciences which keep men alive—worlds which would drown themselves in their own semen, worlds which would pack all of their lands with crowds of big-bellied women—and so go down to death beneath the weight of their own fruitfulness. Then there are worlds which are bleak and barren and bitter, worlds which grind life like grain. Even with body modifications and with worldchange machines, there are only a few hundred worlds which may be inhabited by the six intelligent races. Life is needed badly on the worst of these. It can be a deadly blessing on the best. When I say that life is needed or not needed in certain places, I am, of course, also saying that death is needed or not needed. I am not speaking or two different things, but of the same thing. Osiris and I are book-keepers. We credit and we debit. We raise waves, or we cause waves to sink back again into the ocean. Can life be counted upon to limit itself? No. It is the mindless striving of two to become infinity. Can death be counted upon to limit itself? Never. It is the equally mindless effort of zero to encompass infinity."

"But there must be life control and death control," he says, "else the fruitful worlds would rise and fall, rise and fall, cycling between empire and anarchy, then down to final disruption. The bleak worlds would be encompassed by zero. Life cannot contain itself within the bounds statistics have laid down for its guidance. Therefore, it must be contained, and it is. Osiris and I hold the Middle Worlds. They lie within our field of control, and we turn them on and we turn them off as we would. Do you see now, Wakim? Do you begin to

understand?"

"You limit life? You cause death?"

"We can lay sterility on any or all of the six races on any world we choose, for as long a period of time as is necessary. This can be done on an absolute or a fractional basis. We may also manipulate lifespans, decimate populations."

"How?"

"Fire. Famine. Plague. War."

"What of the sterile worlds, the dry worlds? What of these?"

"Multiple births can be insured, and we do not tamper with lifespans. The newly dead are sent to the House of Life, not here. There they are repaired, or their parts used in the construction of new individuals who may or may not host a human mentality."

"And of the other dead?"

"The House of the Dead is the graveyard of the six races. There are no lawful cemeteries in the Middle Worlds. There have been times when the House of Life has called upon us for hosts and for parts. There have been other occasions when they have shipped us their excess."

"It is difficult to understand. It seems brutal, it seems harsh. . . ."

"It is life and it is death. It is the greatest blessing and the greatest curse in the universe. You do not have to understand it, Wakim. Your comprehension or your lack of it, your approval or your disapproval, will in no way alter its operation."

"And whence come you, Anubis—and Osiris—that you control it?"

"There are some things that are not for you to know."

"And how do the Middle Worlds accept your control?"

"They live with it, and they die with it. It is above their objections, for it is necessary for their continued existence. It is become a natural law, and it is utterly impartial, applying with equal force to all who come beneath it."

"There are some who do not?"

"You shall learn more of this when I am ready to tell you, which is not now. I have made you a machine, Wakim. Now I shall make you a man. Who is to say how you started, where you started? Were I to wipe out your memories up to this moment and then re-embodiment you, you would recollect that you had begun as metal."

"Will you do this thing?"

"No. I want you equipped with the memories which you now possess, when and if I assign you to your new duties."

Then Anubis raises his hands and strikes them together.

A machine removes Wakim from the shelf and switches off his senses as it lowers him. The music pulses and falls about the dancers, the two hundred torches blaze upon the pillars like immortal thoughts, Anubis stares at a blackened place upon the floor of the

great Hall, and overhead the canopy of smokes moves to its own rhythms.

WAKIM OPENS HIS eyes and looks upon greyness. He lies on his back, staring upward. The tiles are cold beneath him, and there is a flickering of light off to his right. Suddenly, he clenches his left hand, feels for his thumb, finds it, sighs.

"Yes," says Anubis.

He sits up before the throne, looks down upon himself, looks up at Anubis.

"You have been baptized, you have been born again into the flesh."

"Thank you."

"No trouble. Plenty of raw materials around here. Stand up! Do you remember your lessons?"

Wakim stands.

"Which ones?"

"Temporal fugue. To make time follow the mind, not the body."

"Yes."

"And killing?"

"Yes."

"And combining the two?"

"Yes."

Anubis stands, a full head taller than Wakim, whose new body is well over two years in length.

"Then show me!"

"Let the music cease!" he cries. "Let the one who in life was called Dargoth come before me!"

The dead stop dancing. They stand without moving and their eyes never blink. There is silence for several seconds, unbroken by word, footfall, breathing.

Then Dargoth moves along the standing dead, advancing through shadow, through torchlight. Wakim stands straighter when he sees him, for the muscles of his back, his shoulders, his stomach tighten.

A metal band the colour of copper crosses Dargoth's head, covers his cheekbones, vanishes beneath his grey-rippled chin. A latitudinal band passes above his brows, over his temples, meets at the back of his skull. His eyes are wide, the sclera yellow and the iris red. His lower jaw makes a constant chewing motion as he rolls forward, and his teeth are long shadows. His head sways from side to side upon its twenty inches of neck. His shoulders are three feet in width, giving him the appearance of an inverted triangle, for his sides taper sharply to meet with his segmented chassis, which begins where the flesh stops. His wheels turn slowly, the left rear one squeaking with each revolution. His arms hang a full four and a half feet, so that his fingertips barely brush the floor. Four short, sharp metal legs are folded upward along his fat sides. The razors come erect on his back, fall again, as he moves. The eight-foot whip that is his tail uncoils behind him as he comes to a halt before the throne.

"For this night, this Thousandyear Night," says Anubis, "I give you back your name—Dargoth. Once

you were numbered among the mightiest warriors in the Middle Worlds, Dargoth, until you pitted your strength against that of an immortal and went down to your death before him. Your broken body has been repaired, and this night you must use it to do battle once more. Destroy this man Wakim in single combat and you may take his place as my first servant here in the House of the Dead."

DARGOTH CROSSES his great hands upon his brow and bows until they touch the floor.

"You may have ten seconds," says Anubis to Wakim, "to prepare your mind for battle. Stand ready, Dargoth!"

"Lord," says Wakim, "how may I kill one who is already dead?"

"That is your problem," says Anubis. "You have now wasted all ten of your seconds with foolish questions. Begin!"

There comes a snapping sound and a series of metallic clicks.

Dargoth rises on to his hind legs, so that now his head raise him three feet higher above the floor. He prances. He raises his arms and flexes them.

Wakim watches, waiting.

Dargoth rises on to his hind legs, so that now his head is ten feet above the floor.

Then he leaps forward, his arms outstretched, his tail curled, his head extended, fangs bared. The blades rise upon his back like gleaming fins, his hooves fall like hammers.

At the last possible moment, Wakim sidesteps and throws a punch which is blocked by the other's forearm. He leaps high into the air then, and the whip cracks harmlessly beneath him.

For all his bulk, Dargoth halts and turns rapidly. He rears once more and strikes forward with his front hooves. Wakim avoids them, but Dargoth's hands fall upon his shoulders as he descends.

Wakim seizes both wrists and kicks Dargoth in the chest. The tail-lash falls across his right cheek as he does so. Then he breaks the grip of those massive hands upon his shoulders, ducks his head and lays the edge of his left hand hard upon the other's side. The whip falls again, this time across his back. He aims a blow at the other's head, but the long neck twists it out of the way, and he hears the whip crack once more, missing him by inches.

Dargoth's fist lands upon his cheekbone, and he stumbles, off-balance, sliding upon the floor. He rolls out of the path of the hooves, but a fist knocks him sprawling as he attempts to rise again.

As the next blow descends, however, he catches the wrist with both hands and throws his full weight upon the arm, twisting his head to the side. Dargoth's fist strikes the floor and Wakim regains his feet, landing a left cross as he does so.

Dargoth's head rolls with the punch and the lash

backs beside Wakim's ear. He lays another blow upon the twisting head, and then he is borne over backwards as Dargoth's rear legs straighten like springs and his shoulder strikes him in the chest.

He rears, once more.

Then, for the first time, Dargoth speaks:

"Now, Wakim, now!" he says. "Dargoth becomes first servant of Anubis!"

AS THE HOOVES flash downward, Wakim catches those metal legs, one in each hand, halfway up their length. He has braced himself in a crouched position, and now his lips curl back, showing his clenched teeth, as Dargoth is frozen in mid-strike above him.

He laughs as he springs back into a standing position and heaves with both arms, casting his opponent high up upon his hind legs, struggling to keep from falling over backwards.

"Fool!" he says, and his voice is strangely altered. His word, like the stroke of a great iron bell, rings through the Hall. There comes up a soft moaning from the dead, as when they had been routed from out their graves.

"Now?" you say? "Wakim?" you say?" and he laughs as he steps forward beneath the falling hooves.

"You know not what to say!" and he locks his arms about the great metal torso and the hooves flail helplessly above his back and the tail-whip swishes and cracks and lays stripes upon his shoulders.

His hands rest between the sharpened spines, and he crushes the unyielding segmented body of metal close up against his own.

Dargoth's great hands find his neck, but the thumbs cannot reach his throat, and the muscles of Wakim's neck tighten and cord as he bends his knees and strains.

They stand so, frozen for a timeless instant, and the firelight wrestles with shadows upon their bodies.

Then with a gigantic, heaving motion, Wakim raises Dargoth above the ground, turns and hurls him from him.

Dargoth's legs kick wildly as he turns over in the air. His spines rise and fall and his tail reaches out and cracks. He raises his arms up before his face, but he lands with a shattering crash at the foot of the throne of Anubis, and there he lies still, his metal body broken in four places and his head split open upon the first step to the throne.

Wakim turns toward Anubis.

"Sufficient?" he inquires.

"You did not employ temporal fugue," says Anubis, not even looking downward at the wreck that had been Dargoth.

"It was unnecessary. He was not that mighty an opponent."

"He was mighty," says Anubis. "Why did you laugh, and make as if you questioned your name when you fought with him?"

"I do not know. For a moment, when I realised that

I could not be beaten, I felt as though I were someone else."

"Someone without fear, pity, or remorse?"

"Yes."

"Do you still feel thus?"

"No."

"Then why have you stopped calling me 'Master'?"

"The heat of battle raised emotions which over-rode my sense of protocol."

"Then correct the oversight, immediately."

"Very well, Master."

"Apologise. Beg my pardon, most humbly."

Wakim prostrates himself on the floor.

"I beg your pardon, Master. Most humbly."

"Rise again, and consider yourself pardoned. The contents of your previous stomach have gone the way of all such things. You may go re-refresh yourself now. Let there be singing and dancing once more! Let there be drinking and laughter in celebration of the name-giving on this, Wakim's Thousandyear Eve! Let the carcass of Dargoth be gone from my sight!"

And these things are done.

WHEN WAKIM has finished his meal, and it seems as if the dancing and the singing of the dead will continue until Time's well-deserved end, Anubis gestures, first to his left, then to his right, and every other flame folds upon every other pillar, dives within itself, is gone. His mouth opens and the words come down upon Wakim, "Take them back. Fetch me my staff."

Wakim stands and gives the necessary orders. Then he leads the dead out from the great Hall. As they depart, the tables vanish between the pillars. An impossible breeze tears at the ceiling of smoke. Before that great, grey mat is shredded, however, the other torches have died, and the only illumination within the Hall comes from the two blazing bowls on either side of the throne.

Anubis stares into the darkness, and the captured light rays reform themselves at his bidding and he sees Dargoth fall once more at the foot of his throne and lie still, and he sees the one he has named Wakim standing with a skull's grin upon his lips, and for an instant—had it been a trick of the flamelight?—a mark upon his brow.

Far, in an enormous room where the light is dim and orange and crowded into corners and the dead lay them down once more upon invisible catafalques above their opened graves, faint, rising, then falling, Wakim hears a sound that is not like any sound he has ever heard before. He stays his hand upon the staff and descends the dais.

"Old man," he says, to one with whom he had spoken earlier, one whose hair and whose beard are stained with wine and in whose left wrist a clock has stopped, "old man, hear my words and tell me if you know: what is that sound?"

The unblinking eyes stare upward, past his own, and

the lips move.

"Master . . ."

"I am not Master here."

" . . . Master, it is but the howling of a dog."

Wakim returns then to the dais and gives them all back to their graves.

Then the light departs and the staff guides him through the dark, along the path that has been ordained.

I HAVE BROUGHT your staff, Master."

"Arise, and approach."

"The dead are all returned to their proper places."

"Very good. Wakim, you are my man?"

"Yes, Master."

"To do my bidding, and to serve me in all things?"

"Yes, Master."

"This is why you are my emissary to the Middle Worlds, and beyond."

"I am to depart the House of the Dead?"

"Yes, I am sending you forth from here on a mission."

"What sort of mission?"

"The story is long, involved. There are many persons in the Middle Worlds who are very old. You know this?"

"Yes."

"And there are some who are timeless and deathless."

"Deathless, Lord?"

"By one means or another, certain individuals have achieved a kind of immortality. Perhaps they follow the currents of life and draw upon their force, and they flee from the waves of death. Perhaps they have adjusted their biochemistry, or they keep their bodies in constant repair, or they have many bodies and exchange them, or steal new ones. Perhaps they wear metal bodies, or no bodies at all. Whatever the means involved, you will hear talk of the Three Hundred Immortals when you enter the Middle Worlds. This is only an approximate figure, for few truly know much about them. There are two hundred eighty-three immortals, to be exact. They cheat on life, on death, as you can see, and their very existence upsets the balance, inspires others to strive to emulate their legends, causes others to think them gods. Some are harmless wanderers, others are not. All are powerful and subtle, all adept at continuing their existence. One is especially noxious, and I am sending you to destroy him."

"Who may he be, Master."

"He is called the Prince Who Was A Thousand, and dwells beyond the Middle Worlds. His kingdom lies beyond the realm of life and death, in a place where it

is always twilight. He is difficult to locate, however, for he often departs his own region and trespasses into the Middle Worlds and elsewhere. I desire that he come to an end, as he has opposed both the House of the Dead and the House of Life for many days."

"What does he look like, the Prince Who Was A Thousand?"

"Anything he wishes."

"Where shall I find him?"

"I do not know. You must seek him."

"How shall I know him?"

"By his deeds, by his words. He opposes us in all ways."

"Surely others must oppose you also. . . ."

"Destroy all you come upon who do so. You shall know the Prince Who Was A Thousand, however, because he shall be the most difficult of all to destroy. He will come closest to destroying you."

"Supposing he succeeds?"

"Then I shall take me a thousand years more to train another emissary to set upon this task. I do not desire his downfall today or tomorrow. It will doubtless take you centuries even to locate him. Time matters little. An age will pass before he becomes a threat, to Osiris or myself. You will learn of him as you travel, seeking after him. When you find him you *will* know him."

"Am I mighty enough to work his undoing?"

"I think you are."

"I am ready."

"Then I shall set your feet upon the track. I give you the power to invoke me, in my name, and in times of need to draw force from the field of Life and of Death while you are among the Middle Worlds. This will make you invincible. You will report back to me when you feel you need to. If I feel this need, I will reach out after you."

"Thank you, Master."

"You will obey all my sendings, instantly."

"Yes."

"Go now and rest. After you have slept and eaten again, you will depart and begin your mission."

"Thank you."

"This will be your second last sleep within this House, Wakim. Meditate upon the mysteries it contains."

"I do so constantly."

"I am one of them."

"Master. . . ."

"That is part of my name. Never forget it."

"Master—how could I?"

(This story is the first in a series.)

The Hiroshima Man

by Brian W. Aldiss

JUST AFTER THE midnight of August 5th, 1945, on a small atoll in the Pacific called Tinian, a chaplain offered up a brief prayer for airmen about to fly on a dangerous mission. "May the men who fly this night be kept safe in Thy care and may they be returned safely to us. . . ."

The men concerned went off to a midnight breakfast consisting of eggs, sausage, and good American coffee. An hour later, a B-29, "Straight Flush", a weather plane piloted by Captain Claude Eatherly, took off. Within an hour and a half, it was followed by "Enola Gay". Both planes headed towards the Japanese city of Hiroshima. In the belly of the "Enola Gay" lay the atomic bomb affectionately christened "Little Boy".

It is, of course, a cliché—and none the less true for that—to say that the atomic age was born with the dropping of that bomb. It was a very difficult birth, just as its later years have been difficult and complex enough, full of enough ambiguities, to satisfy even a science fiction writer. The story of the birth of our age is related, concisely and impartially, in an American book* just published in this country.

This is a popular book, not littered with footnotes. It earns its place on a crowded shelf by virtue of being a model of clear reporting on the steps, mainly political, which led to the dropping of the bomb.

The ill winds of the century, scientific, economic, psychological, national and political, seem to whirl over Hiroshima, making it the eye of the storm for a moment, before they blow outwards again in new and more ominous patterns. The dropping of the bomb, the last military act of World War Two, was the first political act of the Cold War aimed as much against the Soviets as against Japan. Since then, we have had to accommodate ourselves to a world of political acts in which people can easily become non-persons.

JUXTAPOSED in the book with a picture of the "Enola Gay" returning from its mission is a key

photograph: the Big Three at the 1945 Potsdam Conference. There is Generalissimo Stalin, then known to and loved by the British public as "Uncle Joe", with President Harry Truman, who had so recently taken over from Roosevelt, and Prime Minister Churchill, clutching his customary cigar. These leaders, whatever else they had done, had concluded the war against Hitler. The terrible facts about Hitler's extermination of the European Jews had recently come to light and were being digested, as far as that was possible. In two bombing raids on Dresden, 25,000 people had been killed and more injured; 83,000 people had been killed in Tokyo during one fire raid; over 1,000 V-rockets had fallen on Britain; the Russians had lost an estimated twenty million military and civilian people dead.

It was against such megalomaniac facts that the decision was taken to drop the bomb. It was a way of ending the war quickly, the easy way; the alternative was to inflict more fire raids on Japan and to launch a full scale invasion, when the death toll on both sides would have mounted enormously. And there was another consideration; at any moment, Russia would enter the war against Japan.

In May, 1945, Churchill had first used that drab phrase, "the Iron Curtain", which we were to grow to love so well. The multitudes who



**The Decision to Drop the Bomb.*
By Len Giovannitti and Fred Freed.
(Methuen, 50s).

had survived the war but reluctantly to turn and face the spectre Churchill had seen long ago—perhaps when he delayed the Second Front—and realise that good old Uncle Joe was a figure more terrifying and more secure in evil than Hitler, as well as being the world's richest poor man, the apotheosis of Communism: he had no income because he owned all Russia. Stalin was the new improved - model bogeyman.

IN WASHINGTON, a belated realisation that Russian Communism was more to be feared than British imperialism resulted in some nifty footwork. The testing of the atomic device had to be hurried forward. Pressure had been brought to bear on Stalin to enter the war in the Far East; now that pressure was relaxed. The idea of the Russian armies poised on the Manchurian border became hideous, the thought of Russian and American zones of occupation in Tokyo unbearable. Besides, the Russians wished to do away with the Emperor; the Americans saw that he represented stability in Japan. Without the Emperor, Japan might relapse into chaos—which of course would encourage Russian adventuring in the Pacific zone. So lenient American policies must prevail. The war had to be finished, but fast. What made it a little bit awkward was that by June, the Japanese were putting out peace feelers through the Russians.

So, who did decide to drop the bomb? The traditional and correct answer is, of course, Harry Truman. But, as the authors of this book observe, a positive decision was scarcely needed.

A shade of doubt remains as to whether a clear-cut formal decision was ever given. The decision to use the bomb was implicit in the initial undertaking to make the bomb. It had to be made, the argument goes, in case Hitler made one. The Manhattan Project and its allied projects got under way, following Einstein's suggestion to President Roosevelt that a thermo-nuclear bomb would work. Later, many of the physicists and chemists involved had qualms of conscience and protested; but the impetus of events proved too strong for them; there was two billion dollars of tax-payers' money on the ball and it was rolling too fast. And so the bomb designed to be used

against Germany was dropped on Japan as a warning to Soviet Russia.

FOR ALL THAT, there was conscientious debate on the question of using the bomb; one cannot exactly charge such men as Secretary of War Stimson or the cautious Secretary of State Byrnes with indifference; but it seems to me personally that they were no longer as much in command of events as we might suppose, because the world and its events had become too complex.

Japan could have been warned that the new weapon would be used if she did not immediately surrender. But that surrender might not have been forthcoming since, even after the two bombs had fallen on Hiroshima and Nagasaki, there was still a division of opinion within the Japanese government as to whether they should fight on to the death.

And, in sober fact, perhaps it is only because we have been confronted with the effects of those two acts of destruction that no more bombs have been dropped in anger in the succeeding twenty-two rancorous years. Whether as catharsis or trauma-inducer, the effect of that filthy hot cloud boiling up over Hiroshima with whole buildings sailing in it has been lasting.

One of the Americans who was uncomfortably near to the scene of the crime was the Captain, later Major, Claude Eatherly, who piloted the weather plane "Straight Flush". It was he who reported that cloud conditions over Hiroshima were satisfactory, thus sealing the fate of the city.

EATHERLY has since become something of a legend, which is re-examined in another new book*. Nobody could pretend that this rather curiously written volume offers anything like the lucid reasoning which is a feature of *The Decision to Drop the Bomb*—which, incidentally, mentions, Eatherly once in passing—but it is equally interesting and shows another face of twentieth century

**Dark Star. Hiroshima Reconsidered in the Life of Claude Eatherly.* By Ronnie Dugger (Victor Gollancz, 38s).

sickness.

When the "Straight Flush" had made its report, it turned around for home. The highly trained crew debated whether they would stay to see the special new bomb dropped but decided not to wait, as otherwise they would miss the afternoon poker game back on Tinian. Eatherly was a tough young Texan of twenty-seven, devoted to gambling and drink and women, with perhaps the occasional quieter moment when he would look at a comic book. In short, his were the interests of men on active duty everywhere.

His buddies called him Buck. His patriotism was beyond question. None of his friends or crew members recalls his saying anything "in the slightest degree philosophical, profound, or even serious". He was full of horseplay, a swashbuckler, and was disappointed that his boys never got to drop a bomb on Japan themselves. Japan caved in before that happened.

After the war, swashbuckling was out of fashion. Buck's mother died, he got into trouble with the Air Force and had to leave. Like a Battle of Britain hero, he found it hard to settle in Civvy Street, and was soon involved in some shady business of arms-running to Cuba. He was lucky not to be arrested.

He drifted into minor jobs, working in a Texaco service station. There was a scare because his wife had a miscarriage; when doctors examined him, they found he had a defective sperm count. It might have been caused by his flight through an atomic cloud, when he acted as an observer at Bikini. But nothing definite emerged.

So what brought what Dugger quaintly calls "the first hard tug on Eatherly's soul from the demiurge of atomic warfare"? It seems—again, things are none too definite—that he began to have nightmares in 1947 or 1948. He was drinking and gambling a lot. He started passing dud cheques. In February, 1950, he tried to commit suicide, and returned to life to find himself in a veterans' mental hospital.

Discharged from there, his character, on Dugger's evidence, deteriorated. He drank more, passed more dud cheques, tried to commit suicide again. Hiroshima was scarcely mentioned; the legend was merely ges-

tating amid the litter of the Cold War.

WHEN EATHERLY was in jail in 1954, charged with forgery and theft, he wrote to an attorney called Joseph Gowan, who, says Dugger, "believes in the power of prayer, in Unity, a religion he says is similar to Christian Science, and in Scientology": Scientology is also known to the science fiction fraternity as Dianetics.

Gowan went to see Eatherly and, in Gowan's reported words, "I brought out the psychiatric gimmick, which is true, that he felt like he ought to be punished . . . I occasionally suggested to him, as a sort of word to the wise, that it would be foolish to go on hurting himself out of a subconscious idea that he was responsible for Hiroshima . . ."

The tumblers of the lock were turning. Guilt, disappointment, hope, frustration all took their turn; Scientology and the menacing backwash of the thoughts of Hitler, Hirohito, Churchill, Stalin and Truman all swirled together above Eatherly's head. From now on, Eatherly and his story were to be increasingly in the public domain, less an actual person than a case, a problem, a myth, as the four magi figures of our culture — publicists, politicians, psychiatrists and preachers — took over.

While the legend of the guilt-laden Hiroshima pilot grew, Eatherly himself, after another spell of tranquilizers and shock treatment became a small-time hold-up man, stealing petty cash in the little dried-up towns of the southern states. At one grocery store, he did the hold-up with a gun that was broken and unloaded; Dugger emphasises the point as if it were important. "He was nice," said the store-owner. Early in 1957, the Veterans' Association rating board, in Dugger's picturesque phrase, "escalated his mental disability rating to 100 per cent", and boosted his pension. A couple of weeks after that, Eatherly was clapped into jail in Fort Worth.

MEANWHILE, THE Eatherly story was growing larger and even more inaccurate than life, as newshounds all round the world took it up. There is no reason to believe that Eatherly himself was not as

impressed as any one by the stories. Maybe NEWSWEEK was right; maybe he did have the D.F.C.; maybe he had flown over Nagasaki. We believe what we want to believe, and what we want to believe is generally the best story. Even the logician, Bertrand Russell, wrote that Eatherly *dropped the bomb* on Hiroshima. We all holiday in our own imaginations.

The Christians, as represented by the Fellowship of Reconciliation, got to Eatherly. The Catholic COMMONWEALTH said, "Mr. Eatherly, it seems clear, has taken on his shoulders guilt a whole nation would find hard to bear", while CHRISTIAN CENTURY asked, "How will the psychiatrists deal with a man whose tragedy is the tragedy of a whole generation of Americans?" John Wain wrote an Eatherly poem which was published in THE LISTENER; George Barker also wrote one; his was published in the NEW STATESMAN (Dugger is sound on such details).

Inevitably, perhaps, Eatherly began to write letters to all and sundry from his cell. He wrote to a Japanese newspaper saying, among other things, that he also was a victim of Hiroshima. If this is true, and if it is also true that he bears his nation's guilt, this leads to an uncomfortable train of thought. Eatherly lives today the same sort of life he always did, in the sweaty Gulf port of Galveston; his nation and its chief competitor, Russia, perform huge old-fashioned activities like shooting dogs and monkeys and astronauts and cosmonauts beyond the atmosphere in modernised and glamorised versions of Hitler's V-weapons, while the truly modern nation is the one that received the baptism of atomic fire: Japan, which showers the world with a glittering fallout of superb toys — from chronometers and printed-circuit TV sets to slicker land-rovers, racing cars, and oil tankers — not to mention the deadliest forms of unarmed combat and the most hard-core SF films.

THE GERMANS ALSO became involved in the Eatherly business. Günther Anders, who knew the States well and was living in Vienna, began to write to Eatherly. Their exchange of letters was published as a book entitled *Burning Con-*

science, with a preface by Bertrand Russell. Eatherly was taken up by the unilateral disarmers, while the American authorities seem to have been notably unauthoritarian; in this country, he would at least have been interviewed by the government-impersonating Robin Day, and he would have been chaired to Aldermaston. The editor of the NEW YORK POST said, "one almost gets the impression that somewhere in Washington there has been a decision to treat him as a 'non-person' . . ."

We all have myths about ourselves; eventually, it may be only that which distinguishes us from android robots. Eichmann, whose spirit is invoked in Dugger's book, believed himself to be "a man of average character"; that was his myth. Eatherly's navigator, Grennan, said of Eatherly, "He was the Hollywood conception of a pilot . . . He unconsciously tried to live up to that image"; so that back in 1945 Eatherly was already striving towards non-personality.

And today? Dugger obviously liked the subject of his book personally; one feels perhaps that he would prefer to be a debunker, but the bunking forces of the present are too strong for him, and in the end he gives us a romantic portrait of Eatherly today, as almost another Hollywood figure: "He whiled away hours in the clubs of the dark pastels, talking, dancing to the melancholy songs, drinking, thinking. He likes cities because he gets lost in their corners like these. This is where he is, among drifters . . . wedding-goers stopping for a drink . . . tourists in beach clothes . . . a lonely fellow at the bar, staring at the front door, his jaw lax."

This is where he is . . . surrounded by dislocated grammar and bits of the myth of our age. Whether he ever felt truly guilty or not is perhaps not a question to ask; he was a focus for the guilt of others. And whether their guilts were strictly what they believed them to be is another unaskable question. Guilt is the great romance of the 20th century; it should not be more than a decade before we get a musical based on Eatherly's life: "The Hiroshima Man". Meanwhile, perhaps it is enough, and sad enough, to say that he remains the most spectacular victim of the atomic bomb.

Brian W. Aldiss.

JUDITH MERRIL, anthologist extraordinary, once again gathering her ingredients (eye of Ballard, toe of Clarke), weighing and balancing, stirring and spooning, muttering incantations in italic type, producing a steaming and heady 36-piece brew, infusions of which are guaranteed to enlighten, exhilarate and electrify.

And, for the same price, she includes a free, handy, catch-all definition of the sub-genre (with snap-fasteners). Viz: "... a collection of imaginative, speculative writing reflecting ... clearly and sharply the problems and conflicts of civilised man today, and his hopes and apprehensions for the future."

She intends this statement as a description of the book, but implies its value as a blanket to cover the field. I humbly submit at this point that her blanket provides warmth and shelter for *everything* going by the name of "fiction"; that the term "science fiction" has passed irretrievably into the popular idiom, whatever incompatibilities are contained therein; and that the whole effort to rename the stuff is a waste of good introduction space.

The book is the usual Merril menu of balance, variety, and consistently high nutrition from dish to dish. You can't really read this (killing the metaphor) as a book, however, the editor tries to build transitions with her story introductions. You must read it as a collection, one story, a pause, another, a longer pause, and so on. Otherwise you're the man trying to appreciate the structure of snowflakes in a blizzard.

SF patriots over here will admire the heavy influx of Britons into the anthology. Ballard, of course, and Aldiss; Tubb and Roald Dahl; but also less-known names—Alistair Bevan, Johnny Byrne, the fashionable poets Redgrove and MacBeth, and more. Outside *The Best of New Worlds*, Miss Merril's selection gives just about the best available taste of the British "New Light" in SF.

But then, of course, that's what the title says. *The Year's Best*. And what I like about Judith Merril's anthologies (aside from the fascinat-

ing bits of "in" gossip in the preambles) is the obvious conscientiousness they exhibit. Anyone might gather thirty-odd good stories, call them the best, and let the mob argue about it. Miss Merril's hard work obviously goes on considerably longer. We know she has sifted and triple-sifted; we know she has scoured the most unlikely byways for a rich titbit; we know that an enormous quantity of excellent writing has been left out, necessarily, and this fact reassures us about the worth of the anthology and the strength of today's SF.

In the end, these stories give us their own individual and admirable qualities, but also give us a glimpse of new developments in the field (fringe activities, innovations, trends and fashions). What's more, the annual anthologies altogether contain a portrait of the decade's best SF—a portrait drawn with almost magical skill by the editor's knowledge, insight and intuition.

What more can I say? Except that I'd rather have a Judith Merril anthology than just about any other anthology going.

(Miss Merril's annuals have always been badly represented over here—only a few published, and then straight into paperback. But I understand that this situation is soon to be rectified.)

Douglas Hill.

AT ONE POINT in *The Einstein Intersection* (Ace Books, 40 cents) the narrator learns that his world is the result of the interaction of two universes, as an alien continuum intersects that of humanity. It could well be a description of the private universe of Samuel R. Delany as it impinges upon that of his readers. The outcome is a dreamlike Earth where ancient myths—labyrinth and Minotaur, Billy the Kid, pop music idols—sprout anew in strangely altered forms. Lobey, the ugly Orpheus of this future age armed with a machete-flute, leaves his native village in search of the killer of Friza, his Eurydice. Joining a group of dragon-herders, he follows a trail of revelation and discovery, encountering the sinister young-old rethead, Kid Death, the voiceless Green-eye, the four-armed Spider, bizarre in shape and powers, moving against a background of beauty and horror.

Paralleling his course runs that of the author as he journeys across Europe; as he absorbs a scene here, a character there, the story of Lobey evolves. The technique ought to wreck all possibility of suspension of disbelief, yet instead Lobey's world blazes with life; only the richness of Delany's imagery tends at times to clog the narrative and so become self-defeating.

Scarcely less colourful is the universe of Roger Zelazny as displayed in *Four For Tomorrow* (Ace Books, 45 cents), which contains, as might be expected, four stories. First is 'The Furies', an overwritten tale of interstellar crime and punishment which offers no particular justification for its title. Second is 'The Graveyard Heart', a bitter and humorous picture of the Set, most exclusive pack of all, who sleep in cold storage down the centuries while the mundane world grows old, and awaken to brief periods of revelry and, sometimes, involvement with the passing parade of history. Third is 'The Doors of His Face, the Lamps of His Mouth', in which Jean Luharich, glamorous owner of a cosmetics firm, comes to Venus and teams up—again—with an alcoholic hunter in pursuit of a stupendous sea-beast. Long before the chase is over, the rôles of angler, bait and quarry have become interchangeable. Fourth is 'A Rose for Ecclesiastes', where an egotistical poet meets a daughter of the ancient culture of Mars in an outstanding treatment of the theme of interplanetary romance. Theodore Sturgeon contributes the sort of introduction up to which no author should have to live.

If the prose-style of the above writers verges upon the fluorescent, *The Man in the High Castle* (Penguin SF, 5s.) by Philip K. Dick, offers by contrast a clear, cold daylight. For many who lived through the years from 1939 to 1945, the prospect of a Nazi victory is still an undead nightmare, and Dick depicts it in chilling detail. Tracing the interlocking fortunes of a handful of people in the Japanese-occupied sector of North America, the narrative builds up an alternate future/past as convincing as the world we know. Europe and Africa are testing grounds for the perverted science of the Third Reich; the outer planets are destined to be Aryan colonies;

in the USA, Japanese rule has been recognised as the lesser of two evils. Among the items of the conqueror's culture which filter down to the conquered is the *I Ching*, the millennial-old text which the Japanese themselves adopted from China, and which will, when correctly consulted (and interpreted), predict the future. How the *I Ching* affects the destinies of Dick's characters, and how it is connected with the subversive best-seller, *The Grasshopper Lies Heavy*, which describes a world where the Allies were victorious, makes a story of fascinating complexity. For anyone seeking further examples of the work of Philip K. Dick, John Brunner's highly informative article in NEW WORLDS 166 will be an invaluable guide.

Two more titles in the Gollancz SF series, *The Revolving Boy* and *The Wonder Effect*, both at 18s., offer respectively the work of a comparative newcomer, Gertrude Friedberg, and the collaboration of old hands Pohl and Kornbluth. The nine stories making up the latter book span 22 years, beginning with 1940's 'Trouble in Time'. In an introduction, Frederick Pohl declares that at least 25 of the short stories which the team wrote deserve to remain buried. Readers of this collection may consider him conservative. To exhume early material such as 'Marstube' and 'Best Friend', which can scarcely have been notable examples of the genre even in their period, can only detract from the reputation founded upon *The Space Merchants*, *Gladiator-at-Law* and other products of the matured Pohl-Kornbluth style. Redeeming the book to some extent are 'The Engineer', wherein the manager of an undersea oil project tries to be a cool Canute; 'Nightmare With Zeppelins', a Wells-World War One pastiche; and 'The Quaker Cannon', concerning brainwashing, counter-intelligence and betrayal, which is only marginally science-fiction but by far the most satisfying story of the nine.

Although the descriptions of futuristic household gadgets tend to be obtrusive, Gertrude Friedberg demonstrates convincingly in her first science-fiction novel, *The Revolving Boy*, that deep space and domesticity are far from being incompatible. Set in the 1970's, when manned spaceflight has been aban-

doned because of radiation hazards, the novel follows the trials of Derv Nagy, whose compulsion to revolve draws the attention of all about him, an attention which his parents, for reasons of their own, desperately wish to avoid. But by degrees the strange history of Nagy's birth and his inexplicable orientation toward a certain point in the heavens, involve him with an almost forgotten branch of Project Ozma, the search for other intelligences in the universe. There may be little in *The Revolving Boy* for the hard-core SF reader, but it should appeal to a public which is becoming increasingly aware of the field.

Veteran fantasy writer Robert Bloch, who seems finally to have thrown off the "author of *Psycho*" tag, pops up again with *Pleasant Dreams/Nightmares* (Whiting & Wheaton, 21s.). The 15 stories in this collection first appeared between 1947 and 1958, and the style is occasionally faintly dated. Bloch's talent for horror, however, is here in full strength, reinforced by a macabre sense of humour, and tales such as 'That Hell-Bound Train', 'Sweet Sixteen' or 'The Sleeping Beauty', are eminently worth a second run for your money.

J. Cawthorn.

The Authors

Thomas M. Disch is a young American living in Europe. His poetry and short stories have appeared in most of the leading sf magazines, *TRANSATLANTIC REVIEW*, *PLAYBOY*, etc. and he has published three novels, the first of which, *The Genocides* (Whiting and Wheaton) recently appeared in the U.K. 101 *H-Bombs* and *Other Stories* was published last year by Compact Books.

J. G. Ballard is the author of the trilogy *The Drowned World*, *The Drought* and *The Crystal World* (Cape) and of several short story collections, including *The Disaster Area* (Cape). His short fiction has appeared most recently in *ARGOSY*, *NEW WORLDS*, *ENCOUNTER* and *PLAYBOY*.

David I. Masson was born during the First World War and is interested in

literary and linguistic studies. A collection of his stories will be published by Faber and Faber later this year.

Roger Zelazny lives in Baltimore, is the winner of a Hugo Award and a Nebula Award (presented by The Science Fiction Writers of America) for his two novels, *This Immortal* and *The Dream Master* (due to be published by Rupert Hart-Davies). A number of his books are due to be published in the U.K. within the next year.

John T. Sladek is a native of Minnesota and lives in London. He is the author of a variety of short stories and poems, several mysteries and a humorous sf novel *The Reproductive System*. His tour de force, *Masterston and the Clerks*, is due to be published in NEW WORLDS next month.

P. A. Zolne is a painter who has exhibited at the Tate Gallery, the United States Embassy (in the London Group), and elsewhere. Born in Chicago, she now lives in Camden Town. *The Heat Death of the Universe* is her first story.

George MacBeth's poetry has been published widely and he is the author of three collections of verse, *The Broken Places* (Scorpion Press), *The Doodsey Book* (Scorpion Press) and the recent *The Colour of Blood* (Macmillan). A children's book, *Noah's Journey*, was also published by Macmillan. As Talks Producer for the BBC Third Programme, his work has included the series *Poetry Now* and the recent three-part programme *The New SF*.

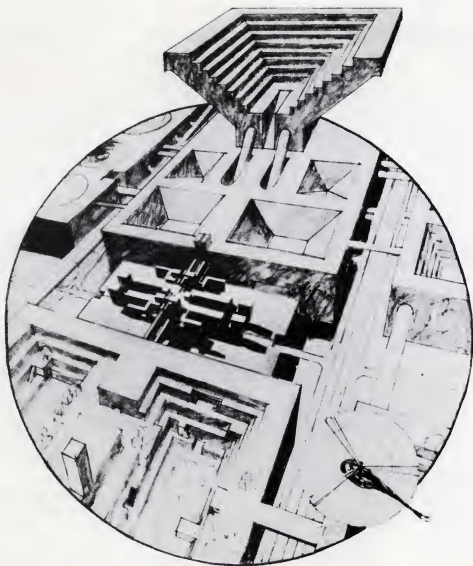
Dr. Christopher Evans is a psychologist whose main area of research is human vision and the design of pattern recognition machines. He is the author of over twenty-five scientific papers.

Charles Platt is the author of a number of short stories and a novel, *The Garbage World* (to be published in the U.S. by Berkley later this year). He has been Design Editor of NEW WORLDS for some time.

Brian W. Aldiss is Literary Editor of the OXFORD MAIL, author of a number of science fiction novels, including *Non-Stop* (Faber), *The Dark Light Year* (Faber) and *Greybeard* (Faber), a book about life in a bookshop, *The Brightfount Diaries* (Faber), and a travel book on Yugoslavia, *Cities and Stones* (Faber).

James Cawthorn is well known as an sf illustrator, is the author of a number of stories for children and a regular book reviewer for NEW WORLDS.

Douglas Hill is a Canadian poet, a freelance editor and an anthologist. His anthologies include *Window on the Future* (Rupert Hart-Davies) and *Way of the Werewolf* (Panther). With Pat Williams he is the author of *The Supernatural* (Aldus). A book on Canada will be published later this year by Heinemann and a new anthology, *The Devil His Due*, is due from Rupert Hart-Davies shortly.



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